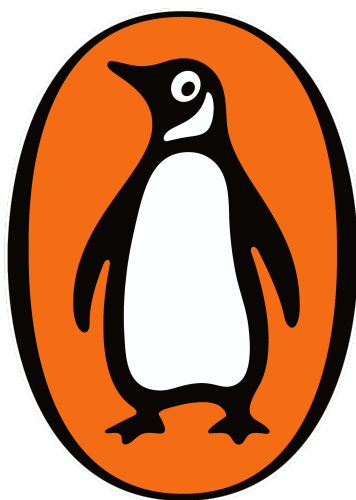


THE
HISTORY
OF
MAagic

*From Alchemy to Witchcraft,
from the Ice Age to the Present*

CHRIS
GOSDEN

‘Fascinating, original and a gripping ride of astonishing span, filled with colourful characters and revelatory research. An essential read’
Simon Sebag Montefiore



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About the Author

CHRIS GOSDEN is Professor of European Archaeology at the University of Oxford. Previously he was a curator and lecturer at the Pitt Rivers Museum, Oxford, where he encountered many magical objects, displayed in a scientific manner. Chris is a Fellow of the British Academy and the Society of Antiquaries, as well as a trustee of the Art Fund, the British Museum and chair of trustees for Oxford Archaeology. He has written or edited eighteen academic books. This is his first trade book.

For Jane, Emily and Jack

Illustrations

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A volvelle – a paper construction with moving parts for finding the places of the planets within the zodiac. It is the counterpart of the astrolabe, which was used for making observations of the sky (Apianus, *Astronomicum Caesareum*. Ingoldstadt, 1540. British Library Maps C.6.d.5, Pl. 27).

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The Battersea Shield, one of the most famous items of British Celtic art (© The Trustees of the British Museum. All rights reserved. Accession Number 1857,0715.1).

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The Desborough Mirror, from the Late Iron Age, with engraved decoration (© The Trustees of the British Museum. All rights reserved. Accession Number 1924,0109.1).

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1. What is Magic and Why is It Important?

For tens of thousands of years, and in all parts of the inhabited world, people have practised magic. Today it is still commonplace, despite many predictions that it would die out, surviving even attempts to eradicate it. When people confront the big issues of life and death, when they desire to know the future or to understand the past, to protect themselves from harm, cure illness or promote well-being, they often turn to magic. In just some of magic's myriad manifestations, witchcraft is seen to bring harm, the spirits of the dead talk to the living, and the evil eye amulet protects a household. Magic can be scholarly and philosophical, leading on to larger questions about the nature and meaning of reality, or homespun and practical, used to remove warts or cure a sick cow. It is experimental, changeable and inventive.

My definition of magic emphasizes human connections with the universe, so that people are open to the workings of the universe and the universe is responsive to us. Magic is related to, but different from, the other two great strands of history, religion and science: the former focuses on a god or gods, the latter a distanced understanding of physical reality. Magic is one of the oldest world-views and yet is capable of constant renewal, so that a modern magic can help us to explore our physical and ethical connections to the world in a time of profound ecological crisis.

Over the last few centuries, magic has developed a bad reputation, partly as a result of the extravagant claims made by its more shady practitioners. A most successful propaganda campaign has also been waged against

magic by its cousins, religion and science. However, any strand of human behaviour that is so widespread and long-lasting must be performing an important role for individuals and cultures. My aim in the pages that follow is to document the strange and compelling variety of magic – and, since magic is found in all times and in all places, this adds a new dimension to the history of the world; and I also aim to explore its positive qualities and to ask: what can magic offer the world today?

One fascinating aspect of magic I will not be looking at might be colloquially called ‘conjuring’ – the skilled misdirection and sleight of hand that can fool even the most attentive observer.¹ Sleight of hand magic contradicts and subverts our common-sense ideas of how the world works: people are sawn in half and made whole without harm; things disappear or turn up in unexpected places; and the audience can never tell which of the three cups the ball is hidden under. In this subversion of the senses, techniques of misdirection blend into the sort of magic in which people make more serious claims to be able to change the world; and there is no doubt that some shamans and magical figures helped to develop such techniques over millennia. There is, however, an important distinction between magic practised for entertainment and that which embodies a more rigorous and practical purpose. This is not in any way to cast aspersions on ‘conjuring’ as some second-class activity – I am a great fan. Rather, I make the distinction to concentrate on forms of magic that claim the seriousness of science and the metaphysical aspirations of religion, claims that should not be dismissed but rather subject to serious scrutiny. Magical practice takes many forms, so let us gain an initial sense of what magic can involve through some concrete instances.

Once upon a time, many years ago, I carried out an archaeological excavation of a cave called Matenkupkum, on the island of New Ireland in Papua New Guinea. Matenkupkum turned out to have evidence of human occupation 35,000 years ago, including indications of some of the earliest seafaring in the world. I lived in a village called Hilalon, which was one of a series of coastal villages facing the Pacific Ocean. I went walking with people from the village one day, as I was interested in older village sites where people had lived before the Colonial Era, but were now abandoned. On the way back to Hilalon in the late afternoon, people said they wanted to show me something interesting, but they wouldn’t say what. Intrigued, I followed them off our direct path back to the coast, and after half an hour

we found ourselves in a glade in the rainforest, where there was a slight depression covered by grass. The place had an unusual feel, a natural break in the trees and much hotter than the shade of the forest. My friends showed me stones lying in the grass, which looked like small stalagmites, many pointed at one end, composed of a creamy material. I'm not quite sure how they were formed or how they got to this particular spot. One older man proceeded to tell me about the stones, saying that on certain occasions the stones could fly around, just above the ground, and anyone near them had to be careful, as they were fast and dangerous and could injure you. However, those with the right knowledge can look at the motions of the stones and tell the future from them. I was excited by this possibility and said, 'I'd love to see them move.' 'No,' my friends replied. 'They don't do it if white people are around.'

I encountered various other stories over the years in New Guinea: stones that you could put both hands on and think about a distant place and then find yourself there. Ever adaptable, New Guineans have invented forms of sorcery that are useful in the contemporary world: for example, how to make yourself invisible in order to rob a bank, which involves putting the bones of a black cat in your hair, told with lots of laughter and questions to me as to whether it might really work. Sorcery to get your kids into university or high school is taken more seriously, but people were less forthcoming about that. Sorcery and magic are common in Papua New Guinea, and they require skills to read the world in the right way, whether this be understanding the movement of the stones, or developing magical actions that work in the village, or furthering the emerging middleclass aspirations of some town dwellers.

One of the more famous accounts of magic by a Westerner is that by the anthropologist E. E. Evans-Pritchard, who worked in the 1930s with the Azande, a farming people who live between south Sudan, the Democratic Republic of the Congo and the Central African Republic. In writing *Witchcraft, Oracles and Magic among the Azande*, Evans-Pritchard made the point that magic and witchcraft were not irrational but allowed for rational argument based on different premises than those common in the Western intellectual tradition. For the Azande, all misfortune and death had a human cause through witchcraft and magic, and the origins of specific instances of accident or death needed to be sought in human motives and politics. Dual modes of causality were accepted. If a granary fell on

someone sitting in its shade and killed them, it was accepted that the ultimate cause of the granary's collapse was that ants had eaten through its wooden supports. However, the real question was: 'Why had it fallen at that exact moment when someone was sitting under it?' A regular answer to this question was that its collapse was the result of witchcraft, leading to a further urgent set of queries as to who the witch was and what their motives had been. No one doubted that a witch could make a granary collapse, because their will could act on material things, often from a distance. One method of investigating witchcraft was to feed poison to a chicken: information about the witch could be gained from whether or not the chicken survived, and, if so, the nature of its actions thereafter. It was said in earlier times that poison was given directly to a person suspected of witchcraft, who would either live or die, with the latter case the ultimate proof of their guilt, as well as punishment for it.

In working through such enquiries the group probed social motives and tensions, making magic an arena in which social accountability was the ultimate question: who was the witch responsible, what were their motives, and how far could they be brought to account? A dispute over land, a marriage payment, an injury or a suspected breach of trust might all lead to witchcraft. Some such instances were one-offs; others derived from long-standing grievances within the group. Azande detective work into why dangerous events had occurred and who might have caused them aimed to identify the underlying cause of an event. Unless a cause was brought to light and dealt with by the group, it could fester and lead to more argument and danger. Azande magic was rational by any standard. Diagnosis and working out of social tensions and disagreements took place only through magic, which played the part a court system does in many parts of the world. The point here is that a belief in magic does not make people irrational, and that the contrast between magic and science is not between irrationality and rationality; rather, people work with various forms of logic that are argued from radically different premises. We will see more on African divination and magic in [Chapter 8](#).

Magic was, and is, also practised in Europe. In the Bodleian Library of Oxford University are records of around 80,000 astrological consultations, dating from between the end of the reign of Elizabeth I in the early seventeenth century and the accession of Charles II in 1660. Together these constitute the greatest single record of astrological work from Early Modern

Europe, demonstrating also the seriousness with which people viewed astrology. As we will see in more detail in [Chapter 9](#), these records were kept by Simon Forman and Richard Napier, the former in London, the latter in Buckinghamshire, where Napier was a rector. Napier also taught his nephew, who became Sir Richard Napier and practised the astrologer's art well into the seventeenth century. Over 60,000 people came to see them, and some came more than once, and most of their questions concerned medical ailments, although people also made enquiries about their careers, missing persons, lost objects of value and a host of other issues of importance. For each consultation we have an astrological chart, which shows the constellation of astral bodies thought to be influencing the health and destinies of the client. Their question and the resulting diagnosis were also recorded. Life-time horoscopes, which were based on the positions of stars and planets at the moment of birth, could be constructed on demand.

Our three astrologers were all respectable citizens, practising their art openly and receiving payment for it. There is every indication that they took their astrological knowledge seriously, as they made comparisons between cases, wondering whether they had made a correct diagnosis in the past and if such a diagnosis could be refined or improved in the future. These astrological consultations represent one of the largest consistent sets of medical records before the twentieth century, an invaluable record of Early Modern illnesses and attitudes to health, as well as indicating a very different and magical mind-set to that employed by germ theory. Forman and the two Napiers were part of a large network of astrologers, though most of their records have been lost, if they were kept in the first place. Astrology is one of the most important themes of this book; it spread to Europe and the Middle East from ancient Mesopotamia, where there were close observations of the planets, stars, Moon and Sun from at least 5,000 years ago, forming the basis for astronomy as well as astrology. We have incredibly rich archival records of magic from the start of writing around 3200 BCE to the present. A host of specialist scholars – from experts in cuneiform, to ancient Chinese, to complex modern manuscripts – are making a wealth of information available, which I have been fortunate enough to draw on here.

Practitioners of a similar sort to Forman and the Napiers were found in Britain through into the nineteenth century at least. People in Medieval and Early Modern Britain did not resort to astrology: astrologers were the first

people they consulted because their methods were seen as tried and trusted (and were probably not as dangerous as early medicine) (see [Figure 1.1](#)). Now it is possible to consult your horoscope through an app, although whether all practitioners approach astrology with the same seriousness as was true of earlier generations is questionable. People today regularly engage with astrology and explore many other magical possibilities, with some believing fully in the potentials of magic and many others wondering ‘What if there really is something in this?’ We will follow this latter question and see where it leads us.

I am sure many readers are rightly sceptical about the existence and efficacy of magic. An initial counter to a radical scepticism is that magic does not derive from strange whims or deliberate irrationality. Much effort has gone into the construction of a mechanistic universe in Western thought, in which planets or atoms are moved by forces, and living things are characterized by biochemical reactions or sometimes the firing of neurons. Equal effort in other cultures has gone into denying differences between the animate and the inanimate, the living and non-living, the human and non-human. In everyday life in the Western world such distinctions also break down, and many of us find ourselves talking to the cat or swearing at the printer when it doesn’t work. Beneath the rationalist rhetoric of our culture exist everyday encounters with small forms of magic: numbers and days can be favourable or not, black cats cross our paths and sportspeople can take magic almost as seriously as their training. Small advantages are sought through what we often decry as irrational means, often hard to take totally seriously but also difficult to ignore. The broad distinction made in Western thought between the categories of nature – where the laws of science apply – and culture – where economic, political, emotional or aesthetic conditions hold sway – makes no sense to many. All modes of life make distinctions between categories of things but also posit similarities. Where the lines of difference or connection are drawn is variable, but they are always logical and meaningful to those drawing the lines.

What is magic?

One of the first questions to ask of magic is: 'What is it?' The definition I will use is one of participation. Human beings participate in the universe directly, and the universe influences and shapes us. For the Azande witch it is possible to make a granary fall without physically impacting on it, perhaps through reciting the correct spell or placing the right substances near it – we are not quite sure about the techniques employed by Azande magic. It is powerful because it is believed in and acted on. Not being Azande myself, at the back of my mind I maintain some scepticism, but that is partly because of having been brought up within a world of criticism and hard proofs. A scientific line of questioning would focus on how could the granary possibly fall without perceptible physical influence. But maybe we should ask what are the consequences, good and bad, of thinking that the witch made the granary fall. The world is complex and multiple, with so many ways of joining up cause and effect, that witchcraft may well form a sensible thread to follow through the many combinations of people and things. In such an instance, there is a continuity between the human will and physical, indeed deadly, effects. For my Papua New Guinean friends a combination of spells and actions might get their kids into university or help them to rob a bank. Skilled reading of the world is also necessary. Only those who know can understand the future from the movement of the stones, but the villagers of Hilalon have no doubt that messages are given and received. The experienced astrologer draws on their personal training to understand how bodies in the sky influence people on the Earth below. Such knowledge is transmitted from one generation to another but also draws on many millennia of observation of the skies and consideration of the influence of what's above on what's beneath. The long history of astrology does not mean that people applied traditional knowledge without thought or a critical perspective. Each age and culture has its own astrology, with which it experiments and tinkers. Similar histories exist for alchemy, the attempt to turn base metals into gold (in Europe and the Middle East) or to effect chemical transformations possibly leading to an elixir of eternal life (in China).

For the French anthropologist Claude Lévi-Strauss, magic was a humanization of the universe. There is a continuity between the human will or actions and the world around us. The converse is also true: magic allows

the universe to enter us, whether this be through the movement of the stars or the messages relayed by moving stones. We exist in a complex mutual interaction with the world, through shared participation. Magical practice does not just involve an intellectual understanding of the world but brings in fuller aspects of the human being through the emotions, psychological and spiritual states. Anger was often the cause of the witchcraft that brought about the fatal fall of the granary. Fear and awe might derive from the movement of the planets. Magic combines what Western thought has often separated as the physical and the psychological or emotional realms.

Magic comes in a great range of forms of participation, which it is helpful to break down further. Three forms of participation can be distinguished: transcendence, transformation and transactions. Transcendent relations exist where the universe is influencing people but is beyond their ability to affect it. A classic example of transcendence is astrology, where astral bodies shape human lives, but people do not influence the movement of the stars or planets. The Medieval and Early Modern European maxim concerning astrology was ‘as above, so below’, a clear one-way set of influences. People can understand, navigate and respond appropriately to transcendent effects, but there is nothing they can do to change them.

Transformation is an aspect of participation: for example, alchemical practices might turn lead into gold, or unremarkable chemicals into an elixir of eternal youth. Magic often also surrounds and informs strong transformations: such is the case with metalworking, where, in many African instances, the smith prepares himself by magical means for his work, as we explore in [Chapter 8](#). People also transform themselves. Shamans on the Eurasian Steppe can inhabit another creature, such as a reindeer or bear, or become a spirit to enter the spirit world. The process of initiation as a shaman often involves the person being taken apart and put back together in a new form, with novel powers. For Australian Aboriginal people the landscape was transformed during the Dreamtime by the actions of ancestral spirits, such as the Rainbow Serpent, to give the land a set of powers and dangers that people need to attend to through ceremonies.

Here transformations blend into transactions. In many forms of magic people make bargains with the universe in its many forms. In China the ancestors were given feasts and offerings to ensure their good will towards their living descendants and could be contacted through divination. Divination was common in many other instances, such as in Ancient

Greece, when the gods responded to questions put to them at oracles. In some cultures, especially monotheisms, a host of lesser beings, such as demons, angels or saints, received forms of supplication or more aggressive attacks to influence their behaviour in favour of humans. Across prehistoric Europe we will see how carefully placed deposits of important objects and bodies were made to the spirits of the place and the social group over many thousands of years in continuing cosmic bargaining.

Transcendence, transformation and transactions were often all found together in mutual interaction. In Medieval Europe, for example, people believed in astrology, with the influence of the planets paramount, experimented with alchemy in the hope of getting rich and gave offerings to saints to gain their favour. But when transcendent relations were predominant, people could feel alienated and fearful of the universe, lacking control over it. More mutual relations existed through transformation and transaction, in which a moral relationship was often important, motivating people to act with due respect and care.

All cultures wonder how the world works. Magic is embedded in these notions of cause and effect, while helping to form them. All schemes of causality involve at least as many questions as answers, but they also respond to the pervasive aspects of the human condition. Magic is intimately linked to those other two frameworks of enquiry and action: science and religion.

The triple helix: magic, religion and science

Magic works through human participation in the universe. In religion the primary human relationship is with one god or many gods. Science distances people from the world, taking them out of it, which leads to their observing and understanding physical operations in abstract terms, before applying that knowledge for practical ends.

For nineteenth- and early-twentieth-century anthropology the relationship between magic, religion and science was an evolutionary one. Two writers have influenced thought on magic ever since, even though their work is now redolent of the fusty atmosphere of the late-Victorian or Edwardian study: E. B. Tylor and James Frazer. The nineteenth-century anthropologist E. B. Tylor called magic ‘the most pernicious delusion ever to afflict mankind’. For Tylor the main point of the then new anthropology was to act

as ‘an emancipatory science’, identifying and rooting out the elements of primitive thought still warping Western rationalism. The movement from magic to religion to science was towards a more empirically correct and institutionally based approach to understanding the world, which lay at the heart of human progress from more primitive to sophisticated thought. The most monumental and influential work on magic in this period was James Frazer’s *The Golden Bough* (1890–1915), which, either in its full twelve-volume edition or abridged single volume, had huge effects on literature and thought. Influenced by Tylor, Frazer saw in human history a shift from the magic of early fertility cults and the sacrifice of a sacred king, to the instantiation of the world’s powers in gods, to be more recently replaced by science.

Rumours of the death of magic have been constantly exaggerated. For Tylor and Frazer, individuals or groups had to choose between magic, religion and science – it was impossible to entertain more than one approach. Tylor in his own life started as a practising Quaker, giving up his Christian belief relatively young and styling himself as a scientist. Furthermore, in Tylor’s view, although both religion and science were seen to have histories, in that they had changed and evolved, magic was an old, inert substrate of belief passed down unchanged from one generation to the next. If magic remained in contemporary Britain, seen to be at the rational and scientific peak of human progress, this was as some fossil, accidentally surviving for a while against the tides of history.

Human history as a whole is made up of a triple helix of magic, religion and science, the boundaries between which are fuzzy and changing, but their mutual tension is creative. A choice between magic, religion and science is unhealthy, and each does have a history. If we concentrate on magic and science for a moment, magic knits us into a dense skein of connections with all other things, living or inorganic. Science creates the powerful fiction that we can stand apart from the workings of the universe and contemplate it in a disinterested and objective manner. An important figure in my story is Newton, described by John Maynard Keynes as the last of the magicians rather than as the first of the scientists.

Newton himself never believed in a purely mechanical universe, although he helped to create it. He spent much of his life in biblical prophecy but was also immersed in alchemy, keeping two furnaces going in his rooms in Trinity College, Cambridge. Alchemy and prophecy have been dismissed as

the strange eccentricities of a great mind, but recently Newton has been reinterpreted, and such apparently eccentric beliefs can be seen as all connected and part of an attempt at a grand theory of everything, in which the physical operation of the universe is understood together with the human immersion in it and the actions of God animating the whole (see [Chapter 9](#)).

Although apparently very different, magic and science have much in common. Both strive to understand how the world works and the manner in which people can benefit from its workings. Science divides the world into matter and energy and seeks the forces that shape them or the chemical and biochemical dynamics that animate all things. Magic sees spirits in the land, considers how people and animals are related, and tries to understand transformations around birth and death. The forces defined by science find echoes in magic's insistence that spirits animate the world. Beneath our more superficial thoughts and discussions lie deeper intuitions and desires concerning our relationship with the world. Here magic and science diverge. The practices and philosophy of magic come from a sense of kinship with other living things, the landscape and the heavens. Through magic we can explore mutuality: how we are joined to the rest of the universe and the manner in which we can affect things around us through ways of participating, which have as a central element a set of moral concerns. Scientific understanding derives from abstraction, through the quantification of matter, energy and force by means of mathematics, but also through logical reasoning from elementary starting points, such as Newton's Laws, towards the true profusion of the world. Science separates people from the world, whereas magic immerses us in it, raising also questions of our moral relationship with the universe in a way that science does not.

In the nineteenth century in Europe the benefits of applied science were evident everywhere. New roads and railways crossed the landscape, rivers were spanned by newly designed bridges, tunnels were bored beneath hills; the flush toilet was connected to a sewage system and made cities suddenly more liveable, while the causes of mass diseases were better understood, laying the basis for modern medicine. Europeans had long colonial encounters with groups in Africa, South America, Asia and Oceania. During the nineteenth century anthropology codified varieties of culture and belief in a systematic manner, and many of the most striking beliefs in the

Colonial world could be characterized as magic. These groups were wrongly seen as representing an earlier stage in human history, with the result that magical beliefs were connected with that stage. Labelling other ways of life as backward or superstitious became part of Europe's definition of itself. We can now reject these Victorian views. Magic today is not a fossil remnant of old beliefs but always exists as part of a triple helix with religion and science, and consideration of this conjoined relationship will provide a new sense of global history.

A very brief history of magic

The relationship between magic, religion and science concerns the balance of power, raising the question of where power exists in the world. Magic sees a direct human relationship with the world. People's words and acts can influence events and processes. Religion takes some of the power out of this magical relationship, placing it with the gods but leaving some room for direct human participation, even if often grudgingly. The mechanical universe of science radically repositions people – the universe works on its own with no need for a god or a person in the main. The universe and its forces are indifferent to people, who live in a state of alienation or anomie if they accept the consequences of a mechanical universe. Many have wrestled with the psychological and emotional consequences of an uncaring universe over the last two centuries. Magic holds the promise of a rich mutual set of connections to the world around us, but many would see such a promise as illusory, dangerous or hopelessly romantic.

Although globally over the last couple of centuries the balance of power has swung away from magic and religion, investing more effective cause and effect in physical phenomena, quite different historical trajectories can be seen in various parts of the world. Too often the histories of magic, religion and science have been written from a Western viewpoint, taking as a starting assumption that science is the only true path to knowledge. In this book we will rebalance our histories by looking at other times and places, which entertain very different assumptions and modes of reasoning in which people are joined to the world in multiple ways and all aspects of the world are sentient, allowing people to thrive within a magical, knowledgeable universe.

Magic is older than religion and science, helping to give birth to them. Such early histories are now forgotten and in need of rediscovery. A pervasive magic was gradually repositioned by an increasingly organized religion in places like the Middle East. It is important to recognize that for a long time organized religion was found only in a small area of the globe: that area between the central Mediterranean and South Asia. It is only in the last two millennia that religions such as Buddhism, Christianity, Hinduism and Islam have spread. To recognize that these world religions expanded late in the human story is a crucial historical fact and one rarely recognized. Organized religion developed where societies, such as those of Mesopotamia and Egypt, became more hierarchical. This concentration of power in fewer people may have been connected with placing the power of the universe in the gods. In Mesopotamia and Egypt the king or pharaoh was either a god or more closely connected to the gods than anyone else. This connection was the source of their power, so that conceptions of how the powers of the universe worked were linked to power in the human world.

Having said that, many hierarchical societies did not develop in this way. In East Asia, the ruler was the head of the most powerful lineage. An important aspect of their role was to question and intercede with human ancestors, who could, if approached correctly, help to guarantee the well-being of their descendants. Here there was no pantheon of gods, and it is likely that the ultimate divine creative force, such as Di in China, who is sometimes described as a god, might have been seen as the original ancestor. East Asian practices were those of deep participation, where the power of people, living and dead, was an integral part of the flows of energy through the universe. These are worlds of transaction, not transcendence. In other parts of the world human lineages were also crucial means of understanding history and continuity, as well as flows of power. Africa exhibits many different lineage modes of life, but these human chains of being are always important. Magic is a common-sense outcome of this emphasis on human connections.

Across the vast grasslands and forests of the Steppe in Central Asia and west into Europe, the world was animated by spirits, some originally human, others less so. There is great variety across these huge spaces. Linguists talk of dialect chains, sets of related languages, in which adjacent forms of speech are mutually intelligible with some effort, but, as you move

along the chain, comprehension decreases. The magical practices of Eurasia are the equivalents of such chains: difference increases with distance, but deep connections exist along the chain. Here the world as a whole was animate, with rocks and trees in some ways equivalent to people. In later periods, at least, and mainly in the East, shamans worked their way between worlds through processes of transformation and transaction. All things, good or bad, derived from the spirit world, and interaction with the spirits was regularly needed by those skilled and brave enough to take the risk.

Human life in the Americas shows huge variety, with shamanic practices in various places; these may have an ultimate historical root in Siberia, the homeland of American populations. Everywhere spirits of place lived beside people. In many areas astrological influences shaped life on Earth, leading to close observation and observance. In the state societies of Central and South America aspects of organized religion evolved, with some named deities, but also with much room for human participation.

The most different part of the world is Australia. Aboriginal people do not so much have a relationship with the land as see themselves as part of the land. Songs, art, dances and indeed culture as a whole all derive from the land, which in turn had been shaped by human ancestors at some point in an unfathomable past. In many senses Aboriginal culture represents the deepest participation of all, states of being that are very hard for people from other cultural backgrounds to truly grasp.

In exploring the historical play between magic, religion and science, this book will be partly geographically ordered, considering various parts of the world but also charting change through time. In bald summary we can distinguish five main sets of relationships.

Magic as a dominant force, including the Middle East and Egypt before the Bronze Age, prehistoric Europe and the Steppe, Aboriginal Australia, North America, and much of South America. In these areas magical practices formed the ether in which all other human customs existed. In some areas, such as Aboriginal Australia and regions of the Americas, this remained the situation until European colonialism. There was little organized religion that we can recognize, and understandings of material properties and forces had not been formalized into anything approaching science. [Chapters 2, 5, 6](#) and [8](#) explore these worlds of magical dominance.

Magic and an emphasis on human lineages, in China and much of Africa and the Pacific. Human participation has deep historical roots in these areas,

deriving from the Glacial Period, and was partially disturbed only by the incursion of new colonial groups and/or novel religions, such as Buddhism in the case of China or Christianity and Islam elsewhere. Human participation in the world was understood through the medium of the ancestors. Contact between the living and dead was maintained through divination, oracles and offerings. Spirits of place were also common, and people needed to transact with them to maintain fertility or avoid harm. Although notions of transcendent powers existed, there were no or few fixed deities prior to the arrival of the world religions. We will look at China in [Chapter 4](#) and other magical lineage systems in [Chapter 8](#).

Magic and religion as equals, in Mesopotamia, Egypt, ancient India, Central and South American states. In these areas it is most difficult to distinguish between the worship of gods and the practices of magic. The former allows some emphasis on transcendence, that is, powers beyond human control. Magical practices insist on human influence and often include interactions with demons, angels or various spirits. Magic and religion were seen as complementary, not mutually exclusive approaches, and it is very difficult to identify a clear boundary between the two. Science starts to emerge through a more abstract and mathematical understanding, especially in Mesopotamia and India. [Chapter 3](#) considers Mesopotamia and Egypt, with [Chapter 8](#) exploring magic in Central and South America.

Religion is dominant and magic ambiguous, including Israel, Greece, Rome and Early Medieval Europe. The rise of monotheism gives religion a more transcendent aspect, investing power in a single God beyond the world. However, the emphasis on angels and demons in Israel and angels, demons and saints in Medieval Europe softens such transcendent powers. Greek and Roman gods can be approached and bargained with, but are capricious and hard for mortals to understand. Magic is commonly and openly practised, but it runs the danger of seeming subversive or being antagonistic to structures of power. [Chapter 7](#) considers Israel, Greece and Rome.

Science, religion and magic exist in that order of cultural importance in Post-Medieval Europe, the European Colonial diaspora and now some elements of the globalized world. The transcendent power of a single God is spread out and applied to the universe of science. Transformations are possible and stressed, when the universe is understood only through science, which is seen as the sole means of grasping reality. There is now a

great emphasis on cause and effect, with earlier forms of thought focusing on resemblances, such as famously through the Greek and then Medieval notion of the Humours, in which Earth, Air, Fire and Water were linked to the constitution and condition of the human body. Those who embrace a scientific attitude stand apart from the universe, attempting to understand it in an abstract manner in order to then manipulate it. Magic is marginalized as an activity of the eccentric or as a counter-cultural practice. In [Chapter 9](#) we will look at Medieval and Post-Medieval Europe, with [Chapter 10](#) considering modern forms of magic, before arguing for a contemporary appreciation of magical practices, inspired by recent scientific developments.

Deep history has seen a movement from people feeling they were part of the world, partaking of its powers of creativity and destruction, to the externalizing of such powers into gods and then to the detached universe as described by science. But magic lived alongside these later trends, curating a direct human connection with the cosmos. Societies in which magic was dominant were not harmonious and peaceful, because of their state of oneness with the universe. There was considerable violence, social collapse and disruption. They certainly do not represent a state to which we can return, even if we should wish so. However, magic is a strand in the long-term history of humanity, and it has important work to do in allowing us to explore our closeness with reality, in providing a useful complement and counter-balance to the more distancing attitudes of religion and science. A choice between these three is neither necessary nor desirable.

The aims of magic

The history of magic developed through a range of common practices found across time and space but always in possession of their own cultural nuances.

All who are born die; all who live for any length of time worry about the future, both for themselves and for significant others. People make decisions about what to do next and worry about the influence of past events on the future. People live through difficult or deadly times, caused by war, famine, flood or fire. Why difficulties started and how they might be stopped is of great importance. The aims and methods of magic are many, but certain commonalities occur. In what follows, I have tried to lay

out some general categories of magical practice found across time and space. By its nature, such a list is indicative, not exhaustive.

Benign magic

Much magic involves attempts to do good in the world, or to avert bad outcomes. Benign magic is more common than its malign twin.

Relationship work. This is a very broad category, as people have multiple relationships with significant others, which can include the land on which people live, plants, animals, artefacts, houses, fellow humans and so on. Each relationship might have its own magic, so that if relationships have gone wrong in some way, or need to be rebalanced or readjusted, effective action can be taken. Many people in the world make no distinction between a human realm, which might be called 'culture', and the rest of the world, which we could term 'nature'. If kinship between people and other entities is emphasized, a quality of cousinhood or a familial relationship with the world generally emerges, and maintaining good social relations requires a normal degree of effort. With such close relations, a non-specialist magician can engage in this work, through everyday hunting magic or agricultural rites in which well-known spells, entreaties or offering are sufficient to attract the positive attention of plants, animals and procreative forces. If the problems involve powerful forces or spirits, specialists will be needed who have training, like shamans or other learned practitioners. Wrestling with difficult and dangerous spiritual forces is not to be undertaken by the novice, as there will be considerable risks to them and to the group as a whole if things go wrong. Aboriginal Australians and Arctic peoples express very strong connections to the landscape as a whole, albeit in very different ways. For Aboriginal people, for instance, songs and ceremony come directly from the land, so that modes of care for the environment are placed upon people by the environment itself. The world at large is not an external force to human society, but human society includes the land and all that is on it.

Apotropaic/protective magic. This is linked to relationship work above and seeks to protect people, animals, plants, landscape or ancestors from harm, and involves practices such as those found in Medieval and Early Modern Europe (immuring cats or shoes in walls) or symbols, such as those used to keep out the devil ([Figure 1.2](#))

Foretelling the future. This can often concern relatively local or personal issues – the health of a child, personal career prospects and so on. Here local fortune-telling or divination may take place, which we think of colloquially as reading the tea leaves ([Figure 1.3](#)). More learned forms of prediction came into being through astrology. Scrying the future can be even grander and more cosmic, through inspired prophecy, often of momentous events such as war or even the end of the world. Prophecy can occur within a religious dimension, in which magic and religion blend. There is a spectrum between tea leaves and grand prophecies of doom, catered for by multiple institutionalized forms of divination, such as in Ancient China or Greece, that range between the wise person in the village to the court diviner, advising on matters of state and policy.

Understanding the past. Looking at the causes of things is also very important, with oracles a powerful technology for finding out the cause of an accident, a death or another misfortune. People want both to diagnose the cause of what happened and then to take appropriate remedial action. The classical anthropological case is the Azande poison oracle, although looking for past causes takes many forms.



Figure 1.2. An eighteenth-century Ethiopian Ketab scroll with prayers for undoing spells to protect its owner. Kept in a silver case. Ketab scrolls originated in the Aksumite Empire (first–eighth centuries CE) and combine Arabic and Christian influences. By the nineteenth century several million were in use.

Dying, death and the dead. Notions of how to die, what happens immediately after death and becoming more stably dead in the form of being an ancestor are all of great interest – the Ancient Egyptians created very elaborate means of dealing with dying and the dead, although this is a theme relevant to all humans. In addition to becoming an ancestor,

widespread preoccupations include talking to the dead and making sure they do not bother the living.

Medicine, sickness, health and possession (mental and physical). Prior to the existence of germ theory (and even after its rise) people's ideas of health often involved relationships with a range of spirits, demons or bad human relations that needed to be counteracted. Frequently, as in the case of Ancient Mesopotamia, dealing with relationships involved herbal remedies but also a series of spells or practices to negate the effects of demons or other malign forces. In most cases, little distinction is made between mind and body, something found increasingly in Western whole-body approaches to well-being ([Figure 1.4](#)).

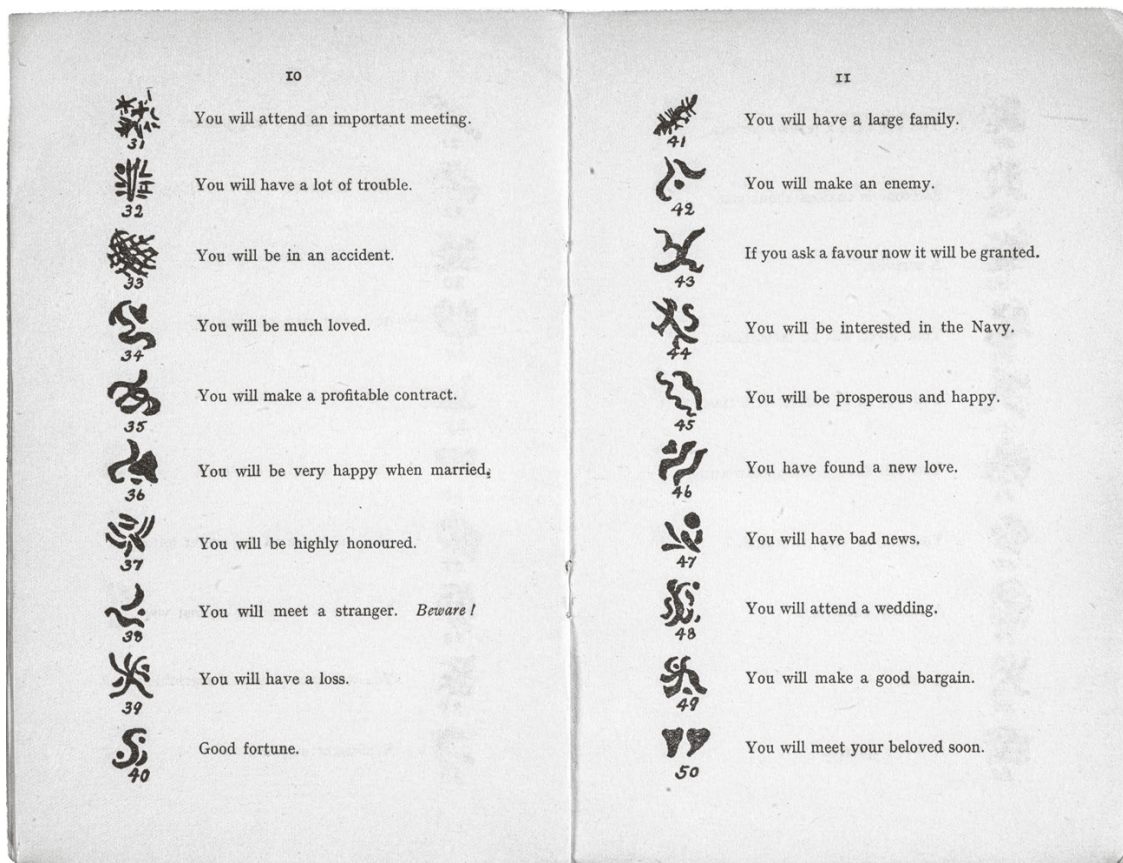


Figure 1.3. A guide to interpreting the shapes formed by tea leaves in the bottom of the cup. Predictions range from the bog standard 'Good fortune' to the more mysterious and highly specific 'You will be interested in the Navy.'

Understanding and effecting transformation. This involves activities such as craft production, with concerns about the practices of the smith, who is able to wield and control powerful forces, being common. Craft

production often involved a series of magical practices vital to its efficacy. Alchemy was a series of varied attempts to transform base metals into gold, giving rise to more recent chemistry. People also worry about monsters and hybrids (griffins, sphinxes, etc.) or more usual transformations, such as a predator eating its prey. The arts shared between the Steppe and Europe in the first millennium BCE exhibit an obsession with transformation and ambiguity.

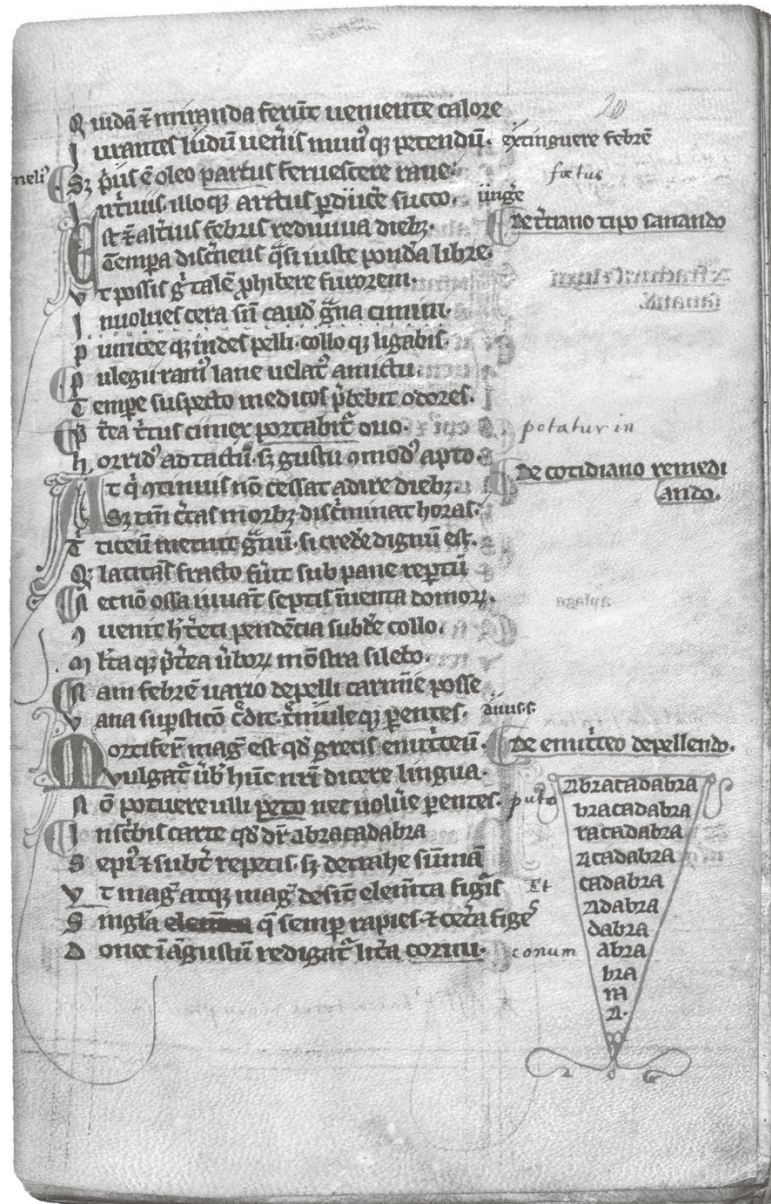


Figure 1.4. The earliest surviving use of the term ‘abracadabra’ – in a cure for malaria. The word is in the triangle at the bottom right and is reduced by one letter every line, which will result in the disease diminishing in virulence (see [Chapter 7](#)). The act of writing the magical word helped to cure the disease.

Manipulating desire. Siberian hunters feel they have to make reindeer desire them so that they will give themselves up during the hunt. People have ancient relationships with reindeer, going back to the Last Glaciation, and it is possible ideas of physical closeness have developed over millennia. Similar notions of sexual desire are also found in Aztec contexts. Many

other cultures, such as those of Ancient Greece and Rome, concentrated efforts on love magic, with occasionally comic outcomes.

Malign magic

Interestingly, this is a smaller category in terms of the varieties of activity found, but it has nonetheless been given a great deal of attention: the literature on modern witchcraft alone is vast. It is an interesting question as to why malign magic is not more common, and it is possible that creating and maintaining good relationships have always been more central to life than efforts at harm, though this might be seen as a romantic and unrealistically positive view of human groups.

Witches, witchcraft and sorcery. These are people or activities that cast spells, effect unwanted transformations – such as turning someone into a frog (and counter-activity, often unwitting – kissing the frog to turn it back into a prince) – or cause harm. Such practices are very widespread: European witches are well-known, but witchcraft is also very prevalent and feared in Africa. Specific cultural differences are important: sorcery is found throughout coastal Papua New Guinea but is absent from New Guinea Highland cultures, a division that is widely recognized but poorly understood, deriving in some way from the separate historical trajectory the Highlands have followed.

Curses. Most common in competitive cultures, such as those from the Middle East to Greece and Rome, as were counter-curses. Curses can cause personal harm or illnesses, but they can also be used to help a sports team win or to make an opponent lose. Cursing is very well developed in the Mediterranean world but is probably global in its scope.

Magic as counter-culture. Ceremonial magic can be developed to deliberately attack or invert general cultural norms. This takes the form of so-called Black Magic, most famous in the recent West through Aleister Crowley and Thelema. Such attempts may involve a deliberate inversion of religious practices (the Black Mass) and use symbols in a manner similar to protective magic (mentioned above).

Sources and approach

My account runs from the deepest history of magic tens of thousands of years ago through to the present. For human history prior to 3500 BCE we have no written evidence, so all our information is based on archaeological surveys and excavations, complemented later by historical sources of various kinds. It is worth bearing in mind some of the strengths and limitations of archaeological evidence. Given the large spans of time we are often dealing with and the destructive forces at work, mainly from later human activities, it is surprising and reassuring how much of a record archaeology provides. Where the historical record often ignores or underplays the poor and those with less power, archaeology is more democratic: it is possible to find smaller houses, settlements and the fields in which people worked, as well as the tools with which they worked. Archaeologists have become more interested in the lives of the majority over the last century, shifting attention away somewhat from elite constructions of palaces, temples and military camps. Treasure is attractive, but more often found through chance than design, and most of us go through our careers without discovering much gold or silver. New scientific techniques can tell us what people ate on the basis of the chemistry of their bones and a certain amount about mobility; a developing genetics sheds light on ancestry; and we are better able to date sites than ever before. Our understanding of past ecologies is deepening and changing.

Equally, much has been lost. Unless conditions are very wet or very dry, organic materials disintegrate. Reconstructing clothing, basketry or woodworking, all major aspects of past lives, requires the careful piecing together of shreds of evidence, helped occasionally by a well-preserved wetland site or things found in a desert. Without words, we do not know what people thought or spoke. But archaeologists do believe that actions speak louder than words in many cases, so that archaeology can tell a story of skill in the making and use of buildings and objects. We can know something of how human bodies moved and acted, the spaces in which they acted, the foods that were eaten, the ornaments worn and the treatment of the dead. Archaeology is also democratic in that we all have thoughts about what it means to be human, about living and dying; an understanding of the past, therefore, is not restricted to the professional archaeologist but can be gained from conversations between archaeologists and indigenous people, or discovered by those engaged in researching their own local history and deeper past.

Two opposite temptations beckon the archaeologist when they are interpreting their evidence. The first is to stick to the bare facts, giving an account of numbers of pot sherds, house sizes, species of animal bones, plants and so on; this has the advantage of not being wrong, but it leaves out many of the things most interesting about human life. The opposite temptation is to over-interpret, claiming that we can understand the fine textures of past lives, why people acted as they did and what it felt like to live ancient lives. Archaeology involves not just statistical or factual analysis but also interpretation; a balance is obviously needed between staying true to the evidence and constructing narratives of the past that speak to concerns in the present. My account here is based on a mass of careful specialist work, as well as on the insights of indigenous people across the world. I have used this detailed work and these grounded insights to bring the history of magic alive, while trying not to step over the limits of interpretation set down by the specialists who know their areas of investigation intimately through often decades of careful scholarship or through living in the magical worlds I discuss.

Thinking about the limits of interpretation, it may appear that archaeology is an unpromising source of information on subjects like magic, religion and science – of intellectual history in general, perhaps. Words are not the only means of access to the intellect if we accept that bodies are intelligent too, acting in skilled and purposive manners. In this book, we are thinking more about what a human body can do through its skills, senses and emotions. The evidence I will present, not just for the early millennia before writing, but also for historically documented periods, is that of the deliberate deposition of objects and bones, both of animals and of people, together with thoughts about the forms of objects, their modes of decoration and their sensory impacts. We will also see some amazing structures. Stonehenge is well-known to us, as are the Pyramids, both of which had purposes beyond the practical that we can now think of as religious or magical. Many structures are less familiar, partly because some are new discoveries that archaeologists are still puzzling over. In most times and places people had the skills and the resources to sustain life – but I start from the assumption, which some may question, that what was more pressing was how to understand the world and people's place within it. Hence the centrality of magic, religion and science in human history and the crucial role archaeology can play in providing a really long-term history.

Historical records of magic are also abundant. These range from the masses of cuneiform tablets found in the archives of Mesopotamian palaces, to the oracle bones recovered from Shang and Zhou tombs in China, to the great range of languages and scripts present in the eastern Mediterranean in the first millennia BCE and CE. In all such cases lifetimes' worth of expertise are needed to decipher the scripts but also to place such translations within the cultural contexts of their times. In the historical chapters my account of the evidence rests on the great richness of scholarly expertise and the generosity of specialists in discussing their thoughts and interpretations with me. When I started this book, I had a sense that there were extensive sources to draw on, but even so I have been taken aback by the explosion of work on magic in almost all places and times, together with a constant insistence that magic was not marginal or dubious but central to many cultural forms. We are only just starting to uncover these histories, partly because Western prejudices against magic have made its study seem like something no one but a bold scholar would attempt. The combination of archaeology and textual analysis has brought people back from the dead: we will meet Fu Hao, a queen from Bronze Age China; and families of magicians from Ancient Mesopotamia who had been forgotten by history but whose names and personalities were revealed again through texts and archaeological evidence.

One geographical area has not received as much attention as I would have liked, and this is South Asia. My lack of attention here has again been due to the voluminous nature of the sources, rather than their paucity. The range and scope of alchemical and astrological traditions within India, Pakistan and Bangladesh have made me believe that I could not do them full justice, together also with the importance of two-way connections to the west, north and east. Given the centrality of South Asia to many magical traditions, mention of the subcontinent is found in a number of chapters.

Finally, I would like to emphasize the difference of the past: it is a foreign country, and many of our common-sense notions about life do not apply. Understanding the past is both challenging and exciting, as it adds to an appreciation of the depth and range of human variety.

Modern magic

Before we dive into the details of past magic, it is important to think briefly about attitudes to magic now and in the recent past. Western culture defines itself negatively through magic. To be modern is to disbelieve in magic. Modernity came about through the Industrial Revolution, more democratic institutions, the rise of a rational science and a broader commitment to reason when analysing human institutions or how the world worked. Magic was thought to be the opposite of all the qualities of modernity. Max Weber, the great sociologist and philosopher, famously argued that modernity came about through a process of disenchantment, a decline of magic caused by a newly rational, routinized and technically effective culture. Weber saw loss in disenchantment, as well as gain. A world without magic was a colder place, lacking emotion and wonder, dominated by technicians without soul and specialists without heart. He felt considerable nostalgia for the days when the world was seen as 'a great enchanted garden'. But, just as the Industrial Revolution swept away a more bucolic world, the loss of magic was an inevitable aspect of progress, with reason being necessary to administer and provision the mass societies emerging first in Europe and America in the nineteenth and twentieth centuries.

For Frazer in the *Golden Bough*, magic aimed to control nature directly; religion looked to how to intercede with a God or gods; and science developed an understanding of the world in physical terms. Frazer also put forward two basic principles of magic: contagion, whereby things influenced each other through proximity or contact – your clothing, once in intimate contact with your body, could be used to harm or protect you even at a distance; sympathetic magic played with resemblances or symbolic associations – like produces like – for example, painting a picture of an animal being speared during a hunt might help to ensure the success of the hunt. Although to professional anthropologists Frazer's work was quickly seen to be based on a limited range of sources and outmoded forms of thought, *The Golden Bough* influenced a range of writers and thinkers through the twentieth century. Keith Thomas's *Religion and the Decline of Magic* (1971) has had a major impact on our understanding of the pervasiveness of magic, and followed Max Weber in charting the decline of magic through the onset of modernity, drawing on the historical sources between the Late Medieval world and around 1700. Among other things Thomas showed the entangled nature of religion and magic in the Medieval world, which to a lesser degree continued thereafter. Having emphasized

the decline of magic over the majority of its 800 pages, the last six pages of Thomas's book display an uncharacteristic uncertainty by dwelling on survivals, ending with the qualification that if magic has not now died out, it has 'greatly decayed in prestige'.² *Religion and the Decline of Magic* set up important debates still alive today.

People have wondered over the last few decades about the death of magic. Those studying more popular magic have charted a series of shifting beliefs still being developed and deployed in the present.³ I have been lucky enough to work for thirteen years in one of the University of Oxford's museums, the Pitt Rivers Museum. Later in my time there I came to realize how much material there was from England, and among the items was a good deal that could be termed magic: a witch in a bottle; a slug impaled on a blackthorn to stop the rain; potatoes carried by an old man in his pocket to help with his rheumatism; the tip of a human tongue (no idea about that one); and an onion stuck up a pub chimney with a piece of paper on which was written the name of a temperance campaigner trying to get the pub closed down – all included in the collections, together with many more. These might be characterized as the magic of the rural and urban poor, weapons of the weak, oppressed by the weight of England's social hierarchy. But the middle classes were also interested in the supernatural, if often in an ironic sort of way. While a curator of the Pitt Rivers Museum, E. B. Tylor attended séances, where spirits spoke through mediums or writing appeared automatically on blackboards. Tylor dismissed most of these as crude trickery or charlatanism, although there were a couple of instances he found harder to explain. He also tried dowsing, and when he located a watch under a pile of carpets was said by an expert dowser to be particularly sensitive. Magic exerted a fascination even in the rational high point of the nineteenth century and was still practised by a good number of people in Britain and beyond.

Many today still believe in magic. Surveys questioning people's beliefs in magic have been carried out both by polling organizations and by academics over recent years, and they show broadly similar trends each time. A Gallup poll carried out by telephone in the US in 2005 questioned 1,171 people, and it showed that three quarters held some belief in what was termed 'the paranormal'. For instance, over half thought psychic healing worked, over a third that some houses are haunted, and one in five thought it possible to communicate with the dead. Interestingly, such beliefs

were held across all ethnic and class groups, with the figures very similar to earlier polls in 2001 and 1990.⁴ Belief in God has been famously high in the US over recent decades. Might it be that beliefs in magic are correlated with religious feelings? In the US some 92 per cent of people think God exists, as compared to 37 per cent in Britain. Nevertheless beliefs in magical practices and occurrences are much the same in both countries, with some variations. Surveys in 2007 and 2008 found that Britons are more inclined to think communication with the dead is possible (27 per cent to 21 per cent), whereas more Americans (21 per cent) believe in witches than Britons (13 per cent). Similar figures are found also in Russia and Germany, with a little more scepticism in France, where, however, over half of those asked believe in ‘magnetic healing’.⁵ There is clearly a cultural dimension to what is believed, but magical beliefs are common. A large and thriving psychology of magical beliefs exists, with beliefs in spirits, mental forms of communication or the ability of some people to act at a distance all found in more recent surveys. The idea that the coming of modernity has all but erased beliefs in magic is clearly wrong, along with the notion that an enlightened Europe holds only scientific views, in contrast with more ‘backward’ beliefs elsewhere in the world. Magical beliefs are global, although the forms those beliefs take vary.

Most people past and present have worked with the deep assumption that the universe is animate and sentient. Rather than seeing celestial bodies as lumps of rock that move in ways purely determined by mass, force and velocity, a clockwork universe, people have explored the ways in which we live in the universe and it lives in us. Such widespread beliefs in animism and sentience must give us pause for thought. Debates surrounding the term ‘animism’ bring out important questions concerning the nature of participation and of sentience. Animism is a useful word but dangerous as well. Rooted in the Latin *anima*, meaning ‘spirit’ or ‘soul’, animism came into English usage through the anthropologist E. B. Tylor in his monumental and popular work *Primitive Culture* (1871). Tylor searched for a definition of religion and came up with ‘belief in spirits’. For him, animism designated an elementary (indeed primitive) mode of religious belief in which spirits existed in the world in a more or less diffuse and differentiated manner, such as through the spirit of a tree or place, without being closely defined as having discrete powers, as happened with gods.

What has come to be called the ‘new animism’⁶ stresses relations between all things.

Slowly through the twentieth century in the West, new models of reality and what it means to be human emerged. The General Theory of Relativity made the universe more dynamic and mobile, showing that time, space and gravity were linked and mutually influential; while Quantum Mechanics made it stranger, adding in the possibility that the observer influenced the things they observed, linking what had been formerly separated as objective and subjective states. Questions such as consciousness have been tackled by putting forward the possibility that the whole of reality might be conscious in some way, with biological species exhibiting special forms of the more general sentience that pervades the universe. Meanwhile, in biology and the social sciences, views of what it means to be human have been created that put less emphasis on a disembodied rational mind and more on the intelligence of the body, our senses and emotional states. Being human has become more whole, placing the mind into the body and then linking bodily skills to the artefacts that people make and use. Not only has human intelligence been rethought, so also has the possibility that many other living things might enjoy the means to communicate and understand each other: trees may have social lives, and octopuses or birds may display creativity and novel behaviours in response to changing conditions. Human intelligence is one element of the broader intelligence of the world, in that people must be constantly responsive to the world around them, both living and non-living. Such notions allow for conversations with animists.

New Age movements, as we will see in [chapters 9](#) and [10](#), drew on notions of spiritualism and Theosophy from the nineteenth century to create an eclectic set of approaches that sometimes combined versions of indigenous beliefs (often to the anger of the indigenous people with whom they had originated). Adherents of the term ‘New Age’, now very rarely used by those who hold such views because of its derogatory connotations, looked forward to a new stage in human and planetary history, perhaps influenced by astrology (the so-called ‘Age of Aquarius’). Elsewhere in the tangled thickets of contemporary belief arose the Gaia hypothesis of James Lovelock, named after the Greek goddess who was the personification of the Earth. The Gaia hypothesis held that both the inorganic and organic aspects of the Earth form something analogous to a single organism, a dynamical system that self-regulates to maintain the conditions for life. It is

possible that humans pose such a threat to ecological systems generally that the Earth may attempt to purge itself of people, in the same way the immune system of a living body will work to protect that body against a pathogen. Here biology and morality meet, underpinning a bold hypothesis about the planetary system, as well as the morality of current modes of mass consumption and the depletion of the Earth's systems that have resulted.

As I will explore further in the final chapter, it is possible and desirable to bring together various aspects of global magical traditions with new developments in various aspects of science, so as to change our deep assumptions about how the world works and our place within it. As I shall return to throughout the book, such a contemporary magic will combine notions of how reality works in a physical sense with a strong moral dimension. Magic connects people to the world in a condition of kinship. Kin need care, and magic can help us develop those conditions of care.

The word 'magic' has a great range of connotations and meanings. None of us would want to be accused of magical thinking. We are all too pleased, on the other hand, if something works like magic. Little praise is higher than if we say a performance, artwork or a landscape is magical. Despite the bad press magic gets, many of our uses of the word are positive. It is this positive aspect that I am trying to capture and develop here. Magic is not a set of outmoded beliefs for the credulous, the ill-educated, the stupid or the mad. Magic is not even something to which people resort but rather is a prominent feature in many lives. Magic encourages a holistic view of human beings, linking them to the planet through practical and moral relationships. At a time when we need positive and holistic planetary thinking, magic has much to offer.



2. The Deep History of Magic (c. 40,000–6000 BCE)

We are about to encounter a series of worlds that is deeply strange to us, in which all the elements of life we hold as common sense fall away. We will discover, among other things, that magic was a crucial part of being human, even when looking far back in time. We start here 40,000 years ago, when the evidence comes into focus in a new way – we are not necessarily looking at the first occurrence of magic. Our concentration will be on Europe and the Middle East, partly because a mass of archaeological work in these areas has created a rich and surprising set of human histories.

We will start initially with the world as it moved into the last Ice Age, when life was hard, but people already had the need to develop magic. Around 27,000 years ago three young men were buried side by side in a shallow pit, in a site now known as Dolní Věstonice, in the southern Czech Republic. Two boys were buried on their backs and one face down. The middle boy's body showed various skeletal abnormalities, which meant among other things that his face looked unusual and that he must have walked with a limp. The three were buried in complex clothing made of plant fibres, including caps decorated with bones and teeth. Good clothing was essential as the Earth moved towards the depth of the last Ice Age, when in this part of Central Europe the cold would have been intense, although these clothes went beyond the functional, with their decorations of teeth and bones. The boys' faces were painted red with ochre, as was the groin area of the central body. The body to the left was arranged so that his

hand touched the groin of the central corpse, a position that appears to us to have a sexual connotation, but we cannot be sure about this, when these people are so distant from us in time. The bodies were probably covered in branches, which were set alight and then quickly covered with earth to minimize burning.

Near the grave-pit were found fragments of a small limestone rod with twenty-nine marks on it, which have been interpreted as notations for a lunar month. The marks are grouped in clusters of 5, 7, 7, 5 and 5, which could reflect changes in the Moon's brightness as it follows its cycle of waxing and waning. If this is a correct interpretation, the rod represents the earliest record we have of astronomic observation, indicating also the possible deep roots of astrology, through which people attempt to understand the influence of heavenly bodies on their lives. We can imagine our distant ancestors sitting out in the intense cold and clarity of the Ice Age night, risking frostbite, to make and test their observations of the Moon, wondering also how the movement of the Moon and other astral bodies might guide their future or explain their past.

Leading north from the boys' burial-pit are seven parts of human skulls placed separately in a line of little pits. Running parallel to this line of skulls is another of hearths and pits, which contain among other things the paws and lower legs of a wolf and large parts of mammoth bones. Probably over a period of some years people came back to this spot and laid out sets of offerings of parts of people and animals of importance: mammoths were large and dangerous but edible, and wolves lived close to people, scavenging their kills and eating rubbish in their camps (it is likely that the domestication of the dog arose as wolves shifted from competing with humans to cooperating with them). If we pan the camera back from these strange remains, we can see a scatter of small camps made up of hearths and huts along the valley of the River Dyje for several kilometres between the present-day villages of Dolní Věstonice and Pavlov. Tiny human groups came and went in this valley over a period of some 3,000 years, around 27,000 to 24,000 years ago, occupying the relatively sheltered valley of the Dyje probably in the winter months, moving near and far across the landscape to hunt reindeer, mammoth and other animals, also gathering plants in this lightly wooded steppe landscape.

One more unusual phenomenon from this profuse and ancient evidence is worth our attention. In 1951, relatively early in the campaign of excavations

near Dolní Věstonice, a structure sometimes known as the ‘magician’s hut’ was excavated. A circular depression had been dug into the soil above the permafrost, its edge marked by stones and bones, which probably held down the roof of the hut, possibly made of animal skins or branches. The hut was small and at some remove from the other winter shelters. In its centre was a small structure made of clay, thought to be a kiln, within which were found the remains of 2,300 small clay figurines. These were mainly effigies of animals that had been deliberately exploded in the kiln (elsewhere on the site beautiful whole female human figurines were found). These were some of the earliest evidence of fired clay in the world, used not to make functional items like pots but small exploding animals. People formed the animals of wet clay and allowed them to dry before exposing them to high temperatures. The sound, heat and danger of particles of exploding clay in a small space, together with the contrast in temperature inside and out, made for an intense set of experiences for all within this small hut. Making and exploding figurines of animals commonly hunted, such as reindeer, has been interpreted as hunting magic, as a means of gaining control over animals: hence the magician’s hut. Although such an interpretation is not definitive, we can nonetheless say that these complex actions not only show a real appreciation of clay but also a means of exploring the human connections to animals: experiments, perhaps, in forms of participation, in order to understand to what extent and in what ways people were entangled with animals and with the earth from which figurines were made.

The Ice Age people of Central Europe lived in an environment most of us would find deadly without modern technology (and possibly with it). The inhabitants of the ancient Steppe did not live a hand-to-mouth existence in which survival was their only concern but rather experimented in their relations with each other, with animals and with astral bodies. Yet there was no room for modes of thought that were not conducive to survival. A belief in magic was not a luxury but integral to understanding and gaining a living from large, dangerous animals and scarce plant foods over many thousands of years. It is quite possible that human kin included animals such as reindeer, wolf or mammoth. Clay may not have been seen as inert but excitingly active when combined with fire. What it meant to be human differed radically from many of our assumptions today. The degree of

involvement people had with their world indicates a deep magic whose influences echo down subsequent millennia.

To understand something of the range of magical involvements in the deep past and the manner in which they threw light on human participation in the world around them, we will first focus in this chapter a little more on the Ice Age and the magical practices surrounding art in Europe. The last great global warming, ending about 12,000 years ago, which killed off mammoths and sabre-toothed tigers, also brought with it unparalleled sets of possibilities for human beings, ushering in great experiments that we are all still beneficiaries of today. The dramatic changes of the newly warmed world are often seen as people taking greater control of their environment through inventing farming – actively growing food rather than hunting and gathering, sometimes seen as a more passive activity. Many of us are the progeny of the Industrial Revolution, which has led us to see world history in terms of large inventions and revolutionary changes. Farming was thought to be one of the biggest of these changes, starting in the Middle East after the end of the Ice Age. New evidence suggests that farming was not a sudden invention; nor does it now seem that people ever had difficulties making a living. Profound alterations occurred in the Early Post-Glacial Period through changing relations between people, herded animals and plants, but these were slow and piecemeal. Some of the most striking evidence is not that of economic change but rather of dramatic change in modes of magic and ritual, aiding investigations into the nature of human participation in the world. Human numbers grew, and concerns about how to live in larger groups without conflict, together with more animals and plants, were more pressing than economic ones, especially in a newly abundant world. These are different cultural worlds from those of Ice Age Europe, with their own forms of action and belief, although some broad similarities can be seen. It is very likely that people's understanding of cause and effect differed from anything we have seen over the last few millennia. Magic is a good guide to strange worlds.

We will focus here on the so-called Fertile Crescent: that large swathe of territory from the Levant up through southern Anatolia, east into the river valleys of the Tigris and Euphrates, and finishing up on the Iranian Plateau. Rather than dramatic breaks between Late Glacial and Post-Glacial ways of life, we will see continuity, as people settled down in the Late Glacial, carefully burying their dead and experimenting with plants and animals in

ways that would eventually lead to farming. People mixed mobile and sedentary lifestyles. They built some of the world's earliest stone monuments and created complex settlements. This was a new world order, with more abundant sources of food, in which people explored their place in novel ecosystems. What resulted was a great variety of lifestyles across a relatively small area, as well as considerable change and dynamism. Ritual and magic were central to these new forms of participation in the world.

We will then shift to a consideration of the origins of religion. When formalized religion first occurred is hotly debated. Many would see the birth of the gods as occurring within the period of earliest farming, the period we now call the Neolithic. I shall separate the birth of the gods from the start of religion. Religion only comes about, I argue, when we have formalized temples and specialist groups – priests – to tend them. The first evidence for temples and shrines comes at the end of the Neolithic in the Middle East, as we shall see. The world of the early farmers was mainly one of magic, into which the gods intruded occasionally and rather hesitantly.

Palaeolithic magic

The Palaeolithic is an immensely long period, starting when the first evidence of human ancestors appears, currently some 7 million years ago, and ending at the start of the last great global warming, about 12,000 years ago. Our ancestors not only became fully human physically but also mentally, through the creation of cultures that we now recognize – and central to those cultures was magic.

Creatures physically identical to us appear for the first time in Africa around 200,000 years ago. At first, our ancestors were only able to live in warm habitats, moving north when the world heated up and later driven south again by the increasing cold. The earliest occupation of Britain, for instance, some 800,000 years ago – when human ancestors left footprints in the soft mud on the coast of Norfolk at Happisburgh – occurred in conditions at least as clement as those that exist today.¹ It is only through the Last Glaciation, starting around 30,000 years ago, that humans could survive in the tundra zones just south of the ice sheets, hunting woolly mammoths and reindeer in competition with large cats and wolves.

It is impossible to imagine the world as it was 40,000 years ago, but it is important to try. Human beings were few. People could feel their own deep awareness of the world and may have believed that the world was also sentient and sensitive to their touch. Before around 30,000 years ago, modern humans lived together with Neanderthals. The two groups of humans were so close biologically that they interbred throughout Europe. Many of us today will have some Neanderthal genes. Both species were mobile, following herds of reindeer and hunting larger animals up to the size of mammoths. Plant foods were also of great importance but really accessible in any amounts only during the summer months. Both Neanderthals and modern humans built structures and used caves. An oval of broken stalactites and stalagmites is found in Bruniquel Cave in France, adjacent to a circle of stalactites (see [Figure 2.1](#) for a map of sites mentioned in this section).² These probably date to around 47,000 years ago, which makes it most likely that they were constructed by Neanderthals, a fact that reinforces the similar capabilities of the two species. Neanderthals produced art too, which has caused something of a stir. Around 40,000 years ago, modern humans arrived in Europe and gradually displaced Neanderthals, despite the occasional positive interaction.

In August 1939 excavations of the Stadel Cave in the Hohlenstein Cliff in Germany were brought to an end by preparations for war. Finds from the cave were packed up and taken to the museum in Ulm. These included numerous fragments of mammoth ivory. It was not until 1989 that these mammoth-tusk fragments were fully fitted together, revealing a 31-cm-high statue, with the head of a lion and body of a human ([Figure 2.2](#)). The arms and legs have a leonine character, as does the head. Horizontal grooves on the upper arm might indicate tattoos or scarification. Considerable debate has ensued about the sex of this figure, which seems to have had a detachable area around the pubis, which some see as a male sex organ and others as female. Given the state of preservation, it will be hard to resolve this debate definitively, and it may be that the statue never had a clear sex. Indeed, the wear on the body indicates the statue was handled regularly. More recent excavations at Stadel Cave have shown that the statue is around 40,000 years old.

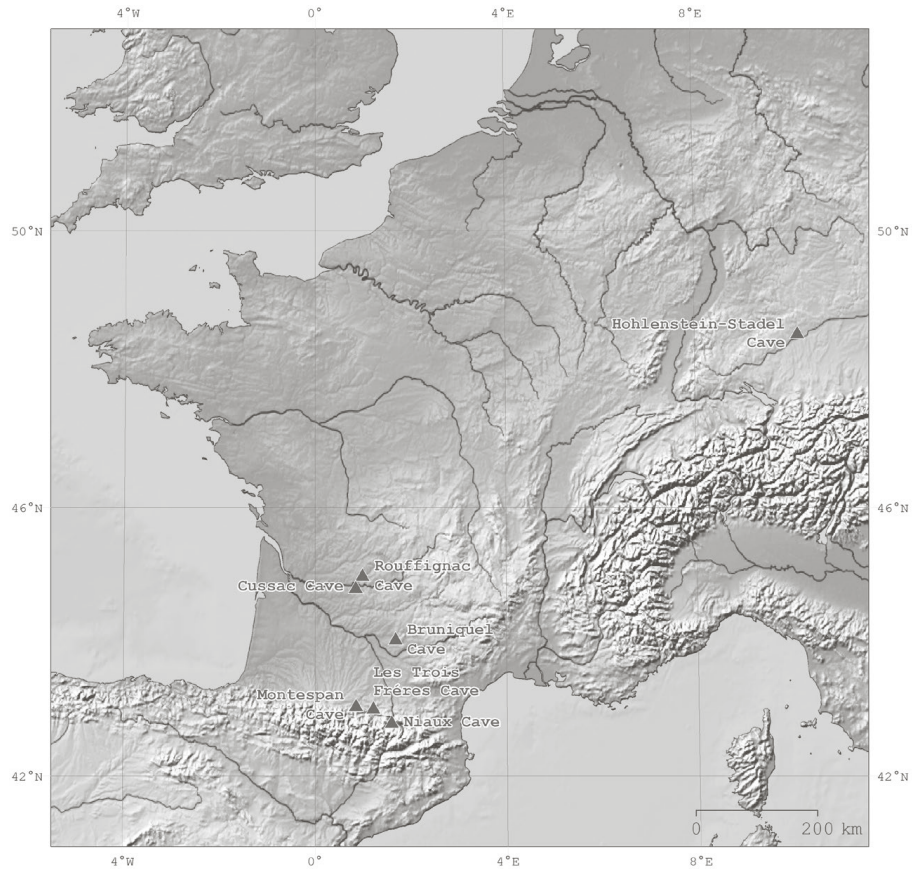


Figure 2.1. Map of the Palaeolithic cave sites mentioned in the text.

In making this piece, people were playing across species boundaries. Three animals were combined. In addition to the features of a lion and a human, the statue was made from the tusk of a young mammoth. It might be that the makers and users were trying to combine the powers of the mammoth, the lion and the person into one object: the mammoth was the largest animal at the time, the lion the fiercest. The tough dentine of the tusk made it hard to work with the flint tools available then – experimental reconstructions have indicated that the statue would have needed at least 400 hours to produce. The choice of material was not dictated by convenience but rather indicates an attempt to mix various powers of the world, showing that humans were intimately linked to other species.

Many caves were lived in during the Ice Age, but Stadel Cave was not one of those. It faces north and gets no sun. There is little evidence of living debris, but a cache of reindeer antlers was found along with perforated arctic fox teeth, perhaps for a necklace. Most likely the cave was a

repository for special objects, with very particular activities also being carried out there, the nature of which we can only guess at now.

Of the many deep caves across Europe, only some 400 have traces of Palaeolithic art, stretching in date from at least 20,000 years ago to around 14,000 years ago.³ New instances of art, in both caves and the open air, are being added at the rate of about one per year. We assume, although we cannot be quite sure, that this art was produced by modern humans. These Palaeolithic artists occasionally explored more than 2 km underground in French caves such as Niaux, Montespan, Rouffignac and Cussac ([Figure 2.1](#)). Carrying flaming torches for light, they crawled through narrow passages, up natural chimneys and down shafts several metres deep, which suggests that they might well have had ropes. Our early ancestors obviously felt a great need to penetrate deep underground. In some places, they left extraordinary images on the walls of the caves ([Figure 2.3](#)). These were mostly animals, but there are occasional stencil handprints, with the marks of fingers covered in paint. Seeing such direct imprints of the human body of both adults and children provokes a shiver, allowing us an intimate connection to our ancestors over huge spans of time.

As well as the art, we have found animal bones stuck vertically into the ground, such as at Chauvet Cave, and also pieces of bone inserted into cracks in the rock. In 2000 the first Ice Age burials in a cave were discovered in Cussac Cave in France. Cussac is more than 2 km long and has much engraved art on its walls, thought on stylistic grounds to date to 28,000–23,000 years ago. Dug into bear wallows were seven skeletons, one of which gave a radiocarbon date of around 25,000 years ago, suggesting the burials were contemporary with the art (and also with distant Dolní Věstonice). Burial in bear wallows also reminds us that caves were inhabited by creatures dangerous to encounter outside, let alone in the confined spaces of a cave.



Figure 2.2. Lion person tusk figurine from Stadel Cave.

Given both the difficulty and danger of walking, crawling and climbing into deep caves, the big question is why people did so at all and why they left compelling art behind them. Many see the art as some form of sympathetic magic, whose aim was to control the animals depicted, which were often hunted. This is not a totally satisfactory explanation, as the numbers of the individual species of animals painted or engraved on cave walls do not exactly match the proportions of bones found on sites where people lived. An important but controversial set of interpretations, featuring magic, has been produced by David Lewis-Williams and his collaborators.

Early in his career, Lewis-Williams worked with Bushmen in Southern Africa, noting that their art derived from broadly shamanistic beliefs and that these beliefs were given shape and emotional force through states of altered consciousness. Bushman rock art was made well into the nineteenth century, and there are some accounts of the ceremony around its making and use. Chanting, drumming, dancing, sensory deprivation and the use of drugs all combined to shape people's appreciation of the world.



Figure 2.3. Painted Ice Age cave art – a 4-m panel depicting black and red horses in Ekain Cave in the Basque Country of Spain, of the Magdalenian Period (c. 17,000–12,000 years ago).

Lewis-Williams has made two contested points. First, he has argued that mind-altering practices are common in form and in outcome across the world today and into the deep past. The similarity of the human brain across 40,000 years worldwide is not debated; but there is argument as to whether people did the same things then as more recently. Lewis-Williams argues that in heightened and excited states people perceive what are known as entoptic phenomena (entoptic meaning ‘within the visual system’). The common structure of the brain ensures that the same stimuli will have the same results, which leads him to think that some of the shapes found in rock

art from the Pleistocene in Europe are similar to those in nineteenth-century southern Africa. Both are argued to be depictions of these entoptic forms. Secondly, Lewis-Williams recognizes common modes of shamanism across hunter-gatherer and early farming groups, in which the cosmos is structured on three levels: the world of the sky or astral realms, the Earth and the underworld.

Furthermore, although in Western thought rock is the most solid and stable of substances, for the Bushmen it is a veil on to which images of the spirit world are projected. Paintings are tracings of these projections, which makes the eland on the cave wall a rendering of an even more real eland in the spirit world on the other side of the rock face. The task of the shaman is to pierce the veil, contacting the spirits and bringing back to the everyday human world vital information, often concerning illness, health and healing. The shaman risks their own well-being by stepping into, and becoming a temporary part of, the world of the spirits. Bleeding from the nose and displaying particular postures, such as a throwing back of the arms, indicate to others in the cave that the shaman is moving between worlds. In Lewis-Williams's accounts there is an attractive but dangerous mixture of evidence drawn from ethnography as well as from a much deeper past.

A rare depiction of a composite animal and human form from Les Trois-Frères Cave in France has been interpreted as a shaman ([Figure 2.4](#)). Lewis-Williams also argues that the rock face for French Palaeolithic people was seen as a membrane, with the animals existing, perhaps in more perfect forms, in a world on the other side of the rock. Evidence for this comes in instances when natural cracks in the rock are used to help to provide the shape of an animal; also, as we have seen, the interest in pushing bone and other materials into rock cracks may be an attempt to commune with the spirit world on the far side. Furthermore, the journeys deep underground may have helped people to leave their normal worlds, possibly while fasting, singing and dancing, or taking drugs to heighten and increase this experience.

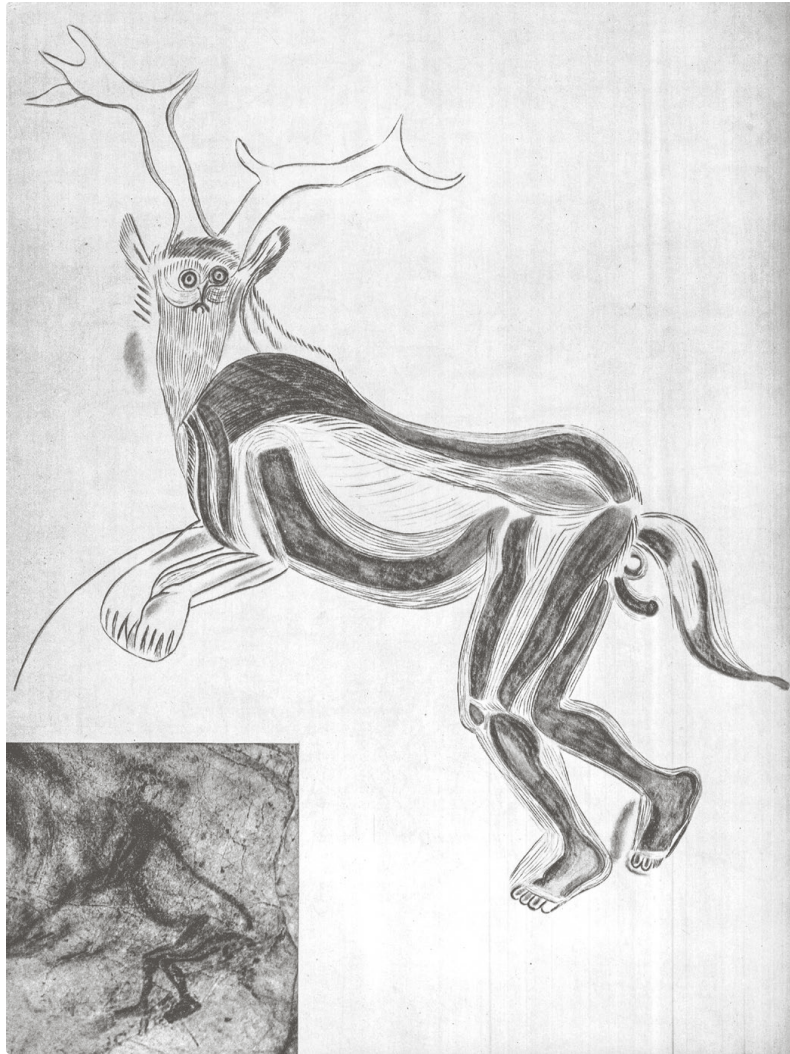


Figure 2.4. 'Shaman', from Les Trois-Frères Cave in France.

For many, Lewis-Williams takes a number of steps too far. The idea that shamanic practices across the world today, from southern Africa to Siberia and South America, are all basically the same ignores cultural contexts and vital differences in the present. To then say that all these practices are broadly similar to those of cave explorers many millennia ago seems absurd. The most outspoken of Lewis-Williams's critics is Paul Bahn, who has decried what he sees as the excesses of the 'shamaniacs', which do not allow for alternative explanations for the art (Bahn sees art as providing some control over the animals depicted and hence some species of sympathetic magic).⁴ Others are uncertain whether the origins of representational art do arise in the attempts to trace shapes, geometric or

animal, perceived in a trance, when in the trance-like state images are shifting, morphing and confusing.

I applaud Lewis-Williams's attempt to enter versions of reality different from our own and to point out the strangeness to us of many of the impulses that lie behind the images in caves. These images are clearly magical, signifying close relationships with the animals depicted. Whether horses, rhinos, mammoths or reindeer were actually viewed as different species from people, or seen as kin in some way, is a question we also need to ask. It is well worth asking too whether parallel universes might have been thought to exist in the last Ice Age, with those deep underground viewed as being somewhat different from those in the world of the surface. With Lewis-Williams, it is useful to wonder what the rock walls represented: perhaps they were considered paper-thin connections to parallel universes in which various species lived. We tend to think of art in terms of what it depicts and represents. Thinking about what it *does* might be more productive here: were art and the magic behind it believed to be technologies that were similar to a spear or a trap in their aims but different in the manner of their execution?

However, I too am uncomfortable with the shamanistic hypothesis. The Ice Age world was so different from anything in the present that we need to be very cautious about making too many links across such vast stretches of time, into worlds when cohabitation with other human species may still have been going on when the art was first made. We cannot know what these worlds of the past were really like; nor can we assume that small, mobile groups of people today preserve or echo past lifestyles in a direct manner. Positing shamans in the Ice Age helps the past to make sense, but it risks reducing the true difference of the past and its interest in magic.

A further set of controversies arises when people talk about cave art as being part of religion. Jean Clottes, one of the great experts on European rock art, says that the 20,000-year span of rock art is evidence for the longest-lasting religion in human history.⁵ The longevity of rock art and maybe some of the motives behind it cannot be doubted. However, I see no evidence for deities or the sorts of organization that we now associate with religion. Stressing religion is due rather to the caution people have when approaching the word 'magic'. Rock art is enchanting to us through the power of its forms, its use of colour and the shape of the rock face, all leading to the verisimilitude of the images. Intense engagement with images

indicates an intense engagement with the animals they depict, as well as attempts to understand and maybe exercise control over them.

If magic derives from a human participation in the world, the skill and effort that went into producing superb art in inaccessible places reflect a deep need to explore relations with other species. Relationships with the world above are echoed in that created deep underground. People explored connections with cattle, horses and deer not in a distanced or disinterested manner but in a way that suggests that the connections with these creatures were some of the closest and most intense they had, possibly on a par with family relations with other humans. Art helped to honour, maintain and manipulate these relations with animals that were of importance to life itself. Art was not just conducive to survival in harsh environments but linked to questions about the nature of human and animal being and becoming. Paintings combined the pragmatic and the philosophical. Aspects of the past cause especially heated debate in the present, and Palaeolithic rock art is undoubtedly one such area. Horses, rhinos, deer and human hands speak to us across a vast gulf in time, and we cannot help but answer back and argue among ourselves. Palaeolithic magic and art remain powerful means of raising deep questions concerning humans in the world.

Over 12,000 years ago the world warmed up, creating conditions broadly similar to those today. Plant and animal numbers increased generally; many species moved into geographical areas from which they had previously been excluded because of low temperatures or lack of water. Human beings experimented with a great range of lifestyles. The changes were generally positive ones, but larger numbers and greater proximity raised important questions of how to live together without tension or violence. Post-Glacial changes have often been interpreted as bringing about the start of farming. In stressing food production archaeologists have assumed that functional aspects of life were the prime movers. However, there is no evidence in this newly abundant world that making a living was tricky, and much of our most striking evidence is of ritual and magical behaviour, the actions of people wrestling anew with philosophical and social questions.

The magical cultures of the Fertile Crescent (c. 23,000–6000 BCE)

At a time broadly contemporary with the last cave art in Western Europe, people had already settled down in the Middle East. These were cultures of

very different forms to those of Ice Age Europe. The locus of much action is the so-called Fertile Crescent, which has been defined as a huge arc from the southern Levant in Israel, Palestine and Jordan, up the Mediterranean seaboard, through to present-day Lebanon and Syria, turning east through the southern end of Turkey and south on to the plains of the Euphrates and Tigris rivers as they flow into the Persian Gulf, but also including the very western slopes of the Iranian Plateau. This is an area of complex landscapes, because here the Arabian, African and Eurasian plates meet, creating among other things the northern end of the Rift Valley, with hilly country in the north of Israel and Lebanon, the highland blocks of Anatolia (out of which the Tigris and Euphrates flow) and the Iranian highlands. A varied topography of hills and valleys is complemented by declines in rainfall away from the coasts of the Mediterranean and the Red Sea: lush coastal ecologies can quickly give way to desert. Topography, rainfall and geology produced a set of ecological mosaics between which a number of species moved, including people. Varied human cultures arose in these complex ecologies, using magical means to wrestle with death and to explore life.

Over millions of years, many species, including humans and their ancestors, have moved out of Africa through these regions, leaving some traces of their populations behind them. The Fertile Crescent is also home to considerable varieties of annual seeding grasses – the ancestors of emmer wheat, einkorn and barley – but also flax, chick pea, pea, lentil and bitter vetch. These include ancestors of many of the most important domesticates, complemented by animal species, such as cows, goats, sheep and pigs central to later farming. As if this variety were not enough, evidence has recently appeared for the domestication of the fig at the end of the Ice Age, as well as small cats. Wild olives were used early as a source of oil, to be domesticated much later. The distribution of vegetation was influenced by climate. The last Ice Age stuttered to a halt, rather than stopping dead. Around 12,000 BCE there was a sudden up-swing in temperature, almost reaching present levels. This fluctuated downwards into a final burst of glacial conditions from around 11,000 to 10,000 BCE, at which time a dramatic increase of temperature ended the Ice Age. (See [Table 2.1](#) for a chronology and [Figure 2.5](#) for a map of the main sites.)

Settled life occurred long before farming, partly because of the rich foodstuffs available.

Date	Archaeological Group	Events and processes
23,000 BCE	Ohalo II	Settled life, seed grinding and some storage
13,000–10,000 BCE	Natufians (early, until 11,000 BCE)	Settled life, storage, burial – skull removal, possible shamanism?
10,000–8700 BCE	Pre-Pottery Neolithic A	Large ritual structures at Göbekli Tepe by mobile people – play with relations between people and animals
8700–7000 BCE	Pre-Pottery Neolithic B	Settled and mobile people – some large sites. Skull removal and modelling, mixing of people and animals, figurines in magical use
7500–5700 BCE	Çatalhöyük	Large settlement with a great range of ritual activities – history houses, links with a range of animals and birds
5500–4000 BCE	Ubaid Period	Many connections over large areas – first temples

Table 2.1. An outline chronology of the Late Glacial to the Mid-Holocene (the 12,000-year period of current warm climates).

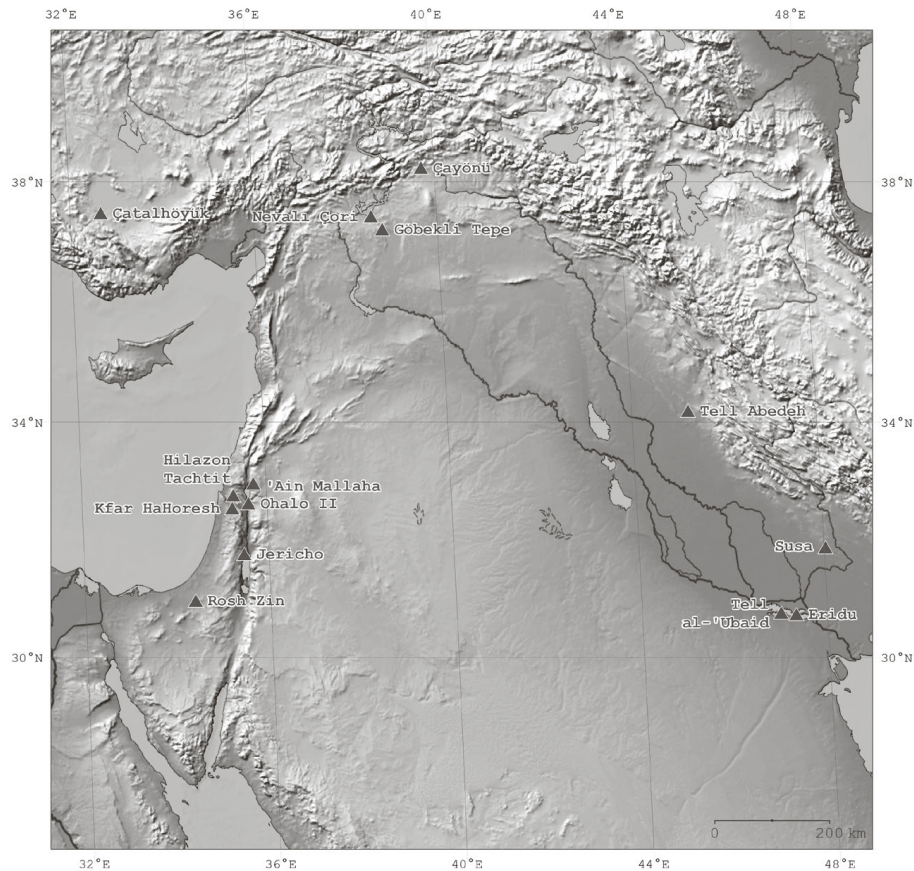


Figure 2.5. Map of sites mentioned in the text, dating between the Late Glacial and the Ubaid periods.

Problems of settled life: the Late Glacial

From the height of the Late Glacial, around 23,000 BCE, there are signs of settled life, for instance at the well-preserved site of Ohalo II at the south end of the Sea of Galilee. A small group lived part of the year in brushwood huts next to the lake when water levels were lower. People used grindstones to process wild grasses (mainly barley), ate considerable amounts of fish, probably caught in nets, had baskets for storage and carrying things, buried one man who had disabilities during life and was looked after by others, and carefully curated their rubbish. Falcon bones have been found, indicating the use of trained birds in hunting. People abandoned the site, probably because Ohalo II was inundated by rising lake levels, which, however, preserved organic remains, giving us an unusually full picture of life at this period.⁶

Life comes more into focus from around 13,000 BCE with the so-called Natufians, with sites from southern Israel and Jordan, north to the Upper Tigris. These groups drew on earlier traditions but expanded their population and range of relationships in the newly warm conditions of the time. Warmer climate gave rise to a mosaic of oak woodland and grass savannah, the former found mainly in lower, wetter areas. The Early Natufians developed a new sense of time and of place through novel distributions of settlement, with large sites acting as hubs in a network of smaller sites where people went out to hunt or gather, returning to the main site after a few days. People lived in small circular structures, of wood and mud or stone. Some settlements were large, such as that at 'Ain Mallaha in Israel, which may have housed 200 people; a more average settlement size was fifty inhabitants. The dead were regularly buried under the floors of houses or nearby, including women, men and children, whose close proximity to the living might indicate their ancestral status. Quite a number had personal ornaments, such as necklaces, garters and bracelets of shell, animal teeth and bones. The close presence of the dead gave people a humanized sense of their past. But pits are also regularly found, probably to store plant foods, indicating practical planning for the future. Plant foods came in part from wild gardens created through burning, weeding and reaping of wild cereals. Some structures might have been for ceremony – the largest, at Rosh Zin, had a paved floor and a prominent stone phallic structure inside, maybe for fertility rites of some kind. These new communities were larger and probably more permanent than anything before, giving rise to an intense ritual life in which people used magic to maintain the fertility of humans, animals and plants, but also to negotiate the passage from life to death.

The later Natufian Period, after 11,000 BCE, saw a final brief return to glacial conditions, during which people became mobile again as food sources became sparser. However, bodies were still buried in old settlement sites, showing that they retained ancestral connotations. Quite a number were buried without their head, the first evidence of interest in the skull that was to continue for many thousands of years. It is possible people took skulls with them as they moved, having carefully buried the rest of the body. Skulls were later buried either singly or in caches. A recent find at Hilazon Tachtit Cave in Galilee hints at more complex practices. Here a small, elderly and disabled woman was interred with the shells of fifty

tortoises, probably eaten as part of a funeral meal, the wing tip of a golden eagle, martens' skulls, an aurochs' (large wild cow) tail, a leopard's pelvis, a boar's leg and an extra human foot ([Figure 2.6](#)). It is possible that a series of rituals was carried out on the other parts of the animals, including the human being, and the bones buried were the end of complicated processes involving a range of unusual animal species.

This woman has been described as a shaman. We are starting to become aware of how many unusual pieces of evidence are explained away by the term 'shaman'. This evidence *is* unusual, and it is possible that important relationships between a person and a range of animals were being explored here in a way that might be described as magical, searching as it was through the nature of human participation in the world. Whether the label 'shaman' helps us in this regard is doubtful.

Early Natufian settlements were probably the largest sedentary communities on the planet at this time. They existed physically through close and lasting relations with a great range of plant and animal species. They existed cosmologically through caring for the dead within the settlement and combining people and animals in burial, at least in the Late Natufian, gathering together in structures picked out for the purpose. At this time too the head became marked as a crucial aspect of the human body, perhaps with heads being carried from place to place before later burial. In this world the dead were members of society, travelling with the living. The well-being of the living may have been dependent on appropriate care of the dead. In these societies, particularly in the last cold millennium of the Late Natufian, issues of fertility and fecundity would have been of crucial concern. Appropriate rituals were developed to link dead humans and other animals to the living, in ways that had considerable longevity, particularly through rituals concerning the skull.

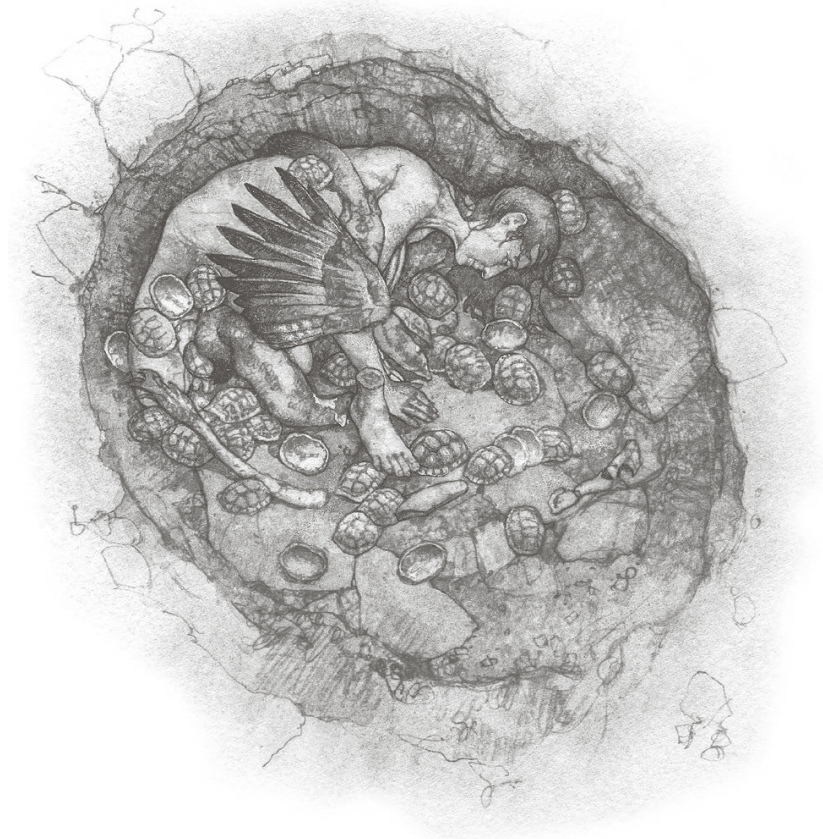


Figure 2.6. Hilazon Tachtit burial – the burial of a so-called female shaman – from the Late Natufian Period, some 12,000 years ago.

Global warming and its magic

The Hilazon Tachtit burial provides a remarkable insight into strange, magical practices. Far to the north and slightly later is even more striking evidence of intense magical ritual. Contrary to popular perception, our view of the past is relatively rarely changed by striking archaeological discoveries. Most change in understanding comes from an accumulation of evidence and thought about its implications. There are exceptions to this, with few more striking than one of the most discussed discoveries of recent times: Göbekli Tepe.⁷ Perched on top of a limestone ridge in the Turkish Province of Urfa are several mounds of stone with many Neolithic flints on their surface and initial indications of large limestone slabs. Here the German archaeologist Klaus Schmidt excavated with the Şanlıurfa Museum from 1996 until his death in 2014. The archaeological world is still coming to terms with the discoveries they made. Partly cut into the underlying

limestone are up to twenty-two circular stone-walled features, some of which also have benches. Most are yet to be excavated. Either set into the walls or free-standing in the middle of the structures are stone pillars up to 6 m tall and maybe weighing 50 tonnes ([Figure 2.7](#)). These are by far the largest stone structures known from the world at this date, a little over 9000 BCE.

Quarried locally and then dragged into place, the pillars were also carved with a variety of animals, many of them fierce and dangerous. The pillars are t-shaped, so that the horizontal element may represent a stylized human head, a conclusion strengthened by the existence of a face on one pillar in Enclosure D and by some having arms carved on the longer sides, meeting as hands on a narrow edge, with also, in one case, at least a possible belt ([Figure 2.8](#)).

By the time of the constructions at Göbekli Tepe, the Ice Age had ended. The climate warmed decisively after around 10,000 BCE, attaining similar levels of temperature and rainfall to the present. The groups we encounter now are labelled Pre-Pottery Neolithic (PPN), because they had no pottery, but for a long time they were not Neolithic either, being communities that lived from wild foods. These groups were the biological and cultural descendants of the Natufians. The earliest PPN communities gathered or cultivated wild grasses (many species of which were later domesticated as cereals, such as wheat, barley and oats) and wild animals, such as gazelle. Across the large area from the Taurus Mountains of Turkey to the Negev Desert in southern Israel, people developed a great variety of ways of making a living, so that there was no single approach that we might call farming. This was a time of experiment for a mobile species like ourselves, as we started to tether our activities even more deeply to some places within the landscape. Such experiments did not just concern what we would see as practical matters but involved also magical play with the problems of group living, as well as relationships with other species.

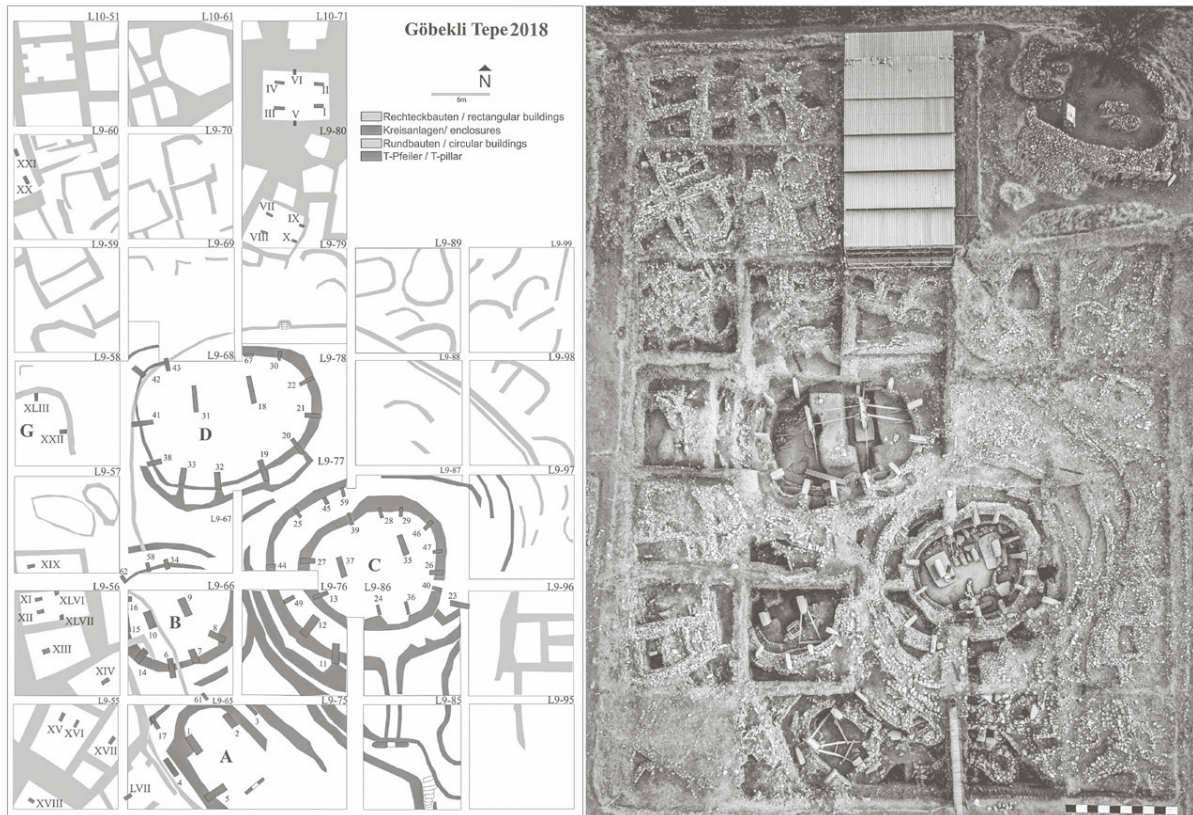


Figure 2.7. Photograph of excavations and a plan of Göbekli Tepe, showing the circular structures with pillars.



Figure 2.8. Narrow side of pillar in Enclosure D at Göbekli Tepe, with a schematic human face near the top, hands and belt in the middle and birds along the base.

The Pre-Pottery Neolithic is divided into three phases: PPNA, B and C. The earliest structures at Göbekli Tepe date to PPNA, just over 9000 BCE, and the site seems to end in PPNB, at least a 1,000 years later on currently known dates. The site was created by hunters and gatherers, not farmers. Given the spectacular nature of the results at Göbekli Tepe, it is not surprising that extravagant statements have been made around it. Any of us would be excited to find anything half as remarkable as Göbekli Tepe, so that it is understandable that some of Klaus Schmidt's views on the site are

a little overblown. Schmidt wove Göbekli Tepe into the story of the first towns, which arose in Mesopotamia four millennia after its demise, saying, 'First there was the temple, then the city.' Göbekli Tepe for him was a series of temples, the earliest in the world. He felt the organization needed to create and maintain the structures at Göbekli Tepe indicated a society with some inequalities, leading eventually to the class divisions of the earliest city-states. For Schmidt, religious belief focused human effort and organization in order to create something of the size and impressive nature of Göbekli Tepe.

More moderate and likely versions of Schmidt's view – that the temple preceded the city – exist, and there have been arguments that religion gave rise to agriculture.⁸ Large numbers of people were needed to quarry, drag and carve the pillars, to build the stone-walled structures and to create the statuary ([Figure 2.9](#)). A large site was needed to allow for ritual gatherings of people from different groups. Several hundred people at least made up such a workforce; each person consumed food and drink. It has been argued that concentrating people like this on a regular basis required more intensive modes of growing and processing food. This intensification we call farming. By contrast, I do not think such sites are best explained as part of the history of farming: people's main preoccupations seem to have been in the ritual itself; they were not intending to become farmers, and this change was an accidental outcome of population growth and aggregation. An explanation of the structures at Göbekli Tepe that is closer to the concerns of the people of the time is likely to be more satisfying.



Figure 2.9. The variety of animals, such as snakes, scorpions and spiders, as well as abstract designs, carved on pillars at Göbekli Tepe.

Unsurprisingly, I would argue for a magical basis for Göbekli Tepe. Evidence is lacking for deities of any kind at the site. Later sites with temples were towns or villages that had a small number of special structures in which groups gathered and worshipped, as we see below; at Göbekli Tepe there is no evidence of habitation, only a series of extraordinary structures. The circles containing the pillars are not big enough to accommodate the full number of people who must have been needed to

build these structures. The largest, the so-called Double Pillar Building, might have allowed thirty-five people to gather within it, presumably a fraction of the maximum who gathered at the site in peak times. Many of the other structures allowed only six people to enter. Small, intense rites were carried out within Göbekli Tepe. As with other sites in the region, there is evidence that fluids were poured and gathered, perhaps including human blood. Some large stone containers have been found, and there is a possibility that the world's first beer might have been brewed and drunk, but the evidence is not yet convincing.

The pillars appear to have been people, with the t-shaped top a head, occasionally showing a face, and some with arms carved on the sides, meeting as hands at a belt on the front. On to these stone humans was carved a range of beasts, all of which were fierce or dangerous in some way, either because they were large cats, or smaller deadly creatures such as snakes or scorpions. The animals that people ate, primarily gazelle, were not depicted. People were wrestling with issues of danger, aggression and violent death. It is possible, but impossible to prove, that by carving fierce animals, dangerous to people and their most significant others, people were using a form of magic to protect themselves and the animals most important to them. Newly large communities probably had novel tensions, which were being worked out by magical means. The performances and structures at sites like Göbekli Tepe formed a central point in which several mobile communities met, working out by cosmological means rivalries, fears and ambitions in a controlled setting. Powerful spiritual, human and animal forces could be played with and, hopefully, played out without their full danger being realized.

A more prosaic aspect of the evidence is also striking. Although we have no traces of habitation (though much of the site has not been excavated), there are abundant indications of eating and drinking, probably through large feasts. Large numbers of animal bones, stone tools and other debris were carefully gathered on the site, and when a circle was deemed to have gone out of use the rubbish from feasts was heaped over it in a large mound. Rubbish seems to us an inconvenience of which we want to be rid. For many in the past the results of socially significant activities were themselves significant, a sort of material history of gatherings, stories, song, perhaps also of sacrifice and fear. Material was carefully curated, then to be used in putting a site to rest. As later generations passed a mound, they

would have known something of the structures beneath and the social significance of the rubbish that capped it. A group is made up of births, deaths, marriages, alliances or fights with other groups, as well as engagements with spiritual powers; woven through the structures and rubbish of Göbekli Tepe was the human and cosmological history of the group, as people practised forms of magic to help them to negotiate their position in a world where populations as well as possible tensions were growing, creating conflicts from which people could not walk away, as they could when life was more mobile.

Imagine standing in one of the circular stone structures at Göbekli Tepe, with stone pillars towering above you, which may not just have been the image of a human but a person in the form of a stone, their threatening animals at your shoulder. Used to living in large landscapes with few people, the crush of bodies would have been unfamiliar, sometimes reassuring, at other times claustrophobic and threatening. You were encountering the most powerful sets of forces in your world – part stone, part animal, but also human. Maybe you were inclined to wonder at these forces, now unknown to us, but perhaps you were trying to shape and channel them, with the constructions at Göbekli Tepe like machines that could alter the universe in ways helpful to people, in a world where people may have taken many forms, from stone pillars, to fierce animals, and then to humans as we would understand them. It is quite possible that bloody sacrifices were made of animals and people. It is certain that the group feasted, probably with story, song and performance. Strong emotions came to the fore and with them danger but also possibility. People were not passive in their world but capable of great feats of labour and imagination to make new, magical structures.

Other sites like Göbekli Tepe exist in this area of south-eastern Turkey, although they have not been investigated. There are indications some were bigger, or might have had stone alignments along which people walked. How each site worked and the manner in which they interacted to form a whole magical landscape will take many years to elucidate, especially given the unsettled situation in the area now. Sites like Göbekli Tepe are extremely striking and hard to understand. They are, however, just one type of site found in the broader Anatolian region at this time.

Far to the south of Göbekli Tepe, among the Nazareth hills of the lower Galilee, is the small site of Kfar HaHoresh. Here a shallow pit was found

filled with ash containing gazelle and human bones (from at least four people) that had been removed from their original skeletons and combined into a new composite skeleton that may have been made to look like a wild boar, an aurochs or a lion (it is hard to tell which).⁹ Elsewhere in Kfar HaHoresh a rectangular structure was found that contained, beneath the floor, a well-preserved plastered human skull buried above the complete, but headless, body of a gazelle. Elsewhere human bones were found associated with aurochs and gazelle. In the first pit people resembled animals; in the second, a gazelle was given a human head. That a gazelle skull was removed during the burial process shows that this creature was treated like a human, and it is possible that its skull was displayed or kept somewhere else, although we do not know that. The mixing of gazelle and human bones in burial breaks down the separation of species, and it is possible that the skills of the gazelle (its speed, agility and so on) were attributed to people, with maybe the reverse also happening. The magical mixing of capacities and bodies might help to create a being with the aptitudes of both a person and a gazelle.

Kfar HaHoresh provided little evidence of straightforward domestic activity, containing plaster floors, some walls and grinding stones. We are now in PPNB (c. 8600–7000 BCE). A number of features stand out here. We saw that in the Natufian Period human skulls were removed prior to burial or after. By PPNB, skulls were being plastered to give them the appearance of human features, often also with cowries for eyes, and sometimes painted. The most famous of these come from the site of Jericho ([Figure 2.10](#)). Detailed analysis of a skull by staff at the British Museum has shown the person had their head deliberately shaped through binding when they were young, possibly in accordance with local aesthetics or for a more cosmological reason. The person had also suffered a blow to the head while still alive: it is not clear if this was the cause of death, but there is a possibility that the person was murdered. The eyes are made prominent by the use of cowrie shells, with modelling of the nose, ears and mouth in clay now less obvious due to erosion.

It is easy enough to describe such skulls in a bland manner, but the process of making a plastered skull was likely to have been messy and disagreeable. In most cases it appears the body was buried whole and then a hole dug and the skull removed sometime later, once decomposition had started. Unless a very considerable time had elapsed, cleaning the skull of

its remaining external and internal tissues would have been an intimate and tricky business, involving the smell of decay and the feel of rotted flesh. It is usually assumed that skulls treated in this way belonged to people who were important ancestors for the group, but we do not know this. The cleaning and plastering of a skull was an act of reverence and care, perhaps as a means of looking after the ancestral dead, but also possibly because people were significant enemies or had gained some importance during life, cosmological or not. The concentration on the head may say something about the seat of personal identity and intelligence (which might also have been the same for gazelles). An emphasis on the head might seem to accord with more recent Western notions that intelligence resides in the mind, which in turn is in the head, but it is dangerous to make parallels between our own world and this one, which is so different. There is some suggestion that skulls were deposited in multiples of three, hinting at a complex numerology lying behind the magical use of skulls.



Figure 2.10. A plastered skull
from Jericho.

By PPNB, the long cultivation of wild grasses and the hunting of gazelles, wild sheep and goats had slowly transformed into the cultivation of cereals and the herding of animals, all of which were domesticated, by which we mean they were altered genetically for human benefit. Wild plants were still gathered and animals, including the gazelle, were still hunted. We see hunting as an aggressive act and farming as nurturing or husbandry, but people had millennia-long relationships with gazelles that had been sustainable, although now maybe put under threat by the considerable human population growth in PPNB. People and gazelles knew

each other intimately, working in landscapes they all understood, and operating in some degree of symbiosis. Under such circumstances the mixing of gazelle and human bones in burial makes sense, working through in death some of the close attachments found in life.

In the Levant during PPNB, some very large settlements arose that represent the culmination of settlement size over millennia. Whereas Natufian villages contained 50 people on average, with 200 a maximum, PPNA sites might have been home to up to 1,000 people (and some had impressive features, such as the large wall at Jericho), and the largest PPNB sites, spread from the Levant, to Anatolia, and down through the Zagros Mountains, might have housed up to 2,000 people. These latest sites were now composed of rectangular houses, breaking with the tradition of round ones, and they sometimes formed tells, mounds rising above the surrounding landscape as new houses were built on the remains of old ones, suggesting new kinds of history in the community and a deeper attachment to place. Sites were not isolated but regularly exchanged materials, such as shells from the Mediterranean or the Red Sea, the black volcanic glass called obsidian from Anatolia, and a variety of stones for tool-making. Such archaeologically visible exchanges were probably the tip of the iceberg, complemented by movements of organic materials, foodstuffs, live animals and people that we cannot now see.

As well as networks of exchanges, a widely shared ritual and magical system existed across the region, making use of clay figurines, stone sculptures, the bodies of humans and animals, and the architectural forms containing them. We do not understand the full set of connections, given the partial nature of the evidence, but what we have is striking. As we have seen, humans and animals were buried together or apart: there are some 120 human burials known from PPNB, some with skulls and others without, mostly in pits beneath houses or under courtyards. In addition there are caches of skulls: those in the Levant to the south are sometimes plastered; those in Anatolia are not until later. There are also large numbers of figurines of people (mainly women) and of animals.

Like human bodies, many of these figurines have been decapitated, indicating they were treated in the same manner as humans and may have been regarded as human to some degree. Quite a number of the animal figurines were cattle, and two have been found with small flint blades embedded in them, as if they had been hunted. There are important regional

differences, among which are the absence of plastered skulls in Anatolia (although skull burial is relatively common), as mentioned, and the presence of possible blood rituals in this area. For instance, at the south-eastern Anatolian site of Çayönü, a large flat stone was found in one building, described anachronistically as an 'altar', with traces of both human and aurochs blood, probably resulting from sacrifice. Sites like Göbekli Tepe are not found in the Levant or the Zagros. Changes over time also occur, the main one of which is the shift from rituals in sites like Göbekli Tepe in PPNA that have architecture but no houses, to a range of ritual activities in and around the house in PPNB. In this later period the nuclear family becomes more central, so that magical rituals are more concentrated in and around the domestic spaces the family occupied. A greater stress was placed on the genealogy of the family and the creation of an intimate relationship between the dead and the living, with the former buried directly beneath the floors on which people walked, worked and slept.

The static archaeological remains indicate an active system of magic, full of blood, fear, procreation and death, in which animals, figurines and people were linked, differentiated and merged in concerns about birth and fecundity or the transformations attendant on coming to life or leaving it. Figurines were decapitated as well as people, an animal could stand in for a human, a pillar might be a human assailed by wild animals, snakes and scorpions. The differences between the Levant and Anatolia suggest that these practices had their own logics in different regions and were not random or accidental, although they were changeable and inventive within the constraints of local traditions. The remains we have are most striking, but were clearly only the visible element of a most complex world. Connections and transformations were made, but all between things existing in the phenomenal world. There is no sign down to the end of PPNB of transcendent gods or spirits.

When did religion start?

Given my argument that magic, religion and science have always been with us, this might seem an odd question, but religion takes on a formal quality around 8,000 years ago, possibly providing an institutional dimension to existing beliefs in deities of various kinds. Religion, I argue, has two

aspects. First is a belief in a transcendent power or powers beyond the human world, something that we hold in awe or that strikes us with wonder or fear. Secondly, religion really comes into being when it has some institutional and physical structures. People need special places to worship, set apart from everyday life and where a good number of the community can come together. Religions of later periods also trained some specialist guides for the congregation – priests or priestesses – who are said to be especially knowledgeable about the canon of belief and the appropriate actions required when worshipping, but may also provide guidance through life itself. Such specialists might well have their own regalia and equipment to channel and encourage the right sorts of actions and thoughts in themselves and the larger group.

As we have seen, claims have been made that Palaeolithic rock art represents an ancient religion. Closer to the time period we are now considering, similar claims have been made for the amazing Neolithic site of Çatalhöyük on the Konya Plain in Turkey. Before 7000 BCE, groups of people started to come together on a large fan of river-borne soil, only abandoning the site more than a millennium later. Population soon increased to between 3,000 and 8,000 people living in mudbrick houses, which were often joined together on all sides, so that entry may well have been through the house roofs. This intense community constructed houses with painted walls, showing scenes of leopards, aurochs, vultures and cranes. Occasionally the horns of aurochs were plastered into the walls. Beneath the house floors the dead were buried, now sometimes with plastered skulls, taking up practices of plastering human heads previously only known from the south. Burials were often concentrated in so-called ‘history houses’, built directly one on top of each other, making manifest in mudbrick the lineal continuity of the human inhabitants. The fierce wild animals depicted in wall paintings were more rarely found among the bones on the site, which were mainly sheep and goats that were probably cultivated and herded some kilometres from the settlement, in the immediate environs of which was a swamp. Çatalhöyük has been interpreted as a place where religion was practised,¹⁰ but I would prefer to see it as a continuation and culmination of earlier Pre-Pottery Neolithic practices, which were a magical play on the links between humans and many other things, some living, some not.

The first real evidence of the institutional nature of religion comes with the so-called Ubaid Period (c. 5500–4000 BCE – there is a Pottery Neolithic between PPNB and the Ubaid), named after the site of Tell al-'Ubaid in southern Iraq. Throughout the Middle East during this period, people had given up larger settlements, like that of Çatalhöyük, and now lived in small villages of a hectare or two in size containing hundreds rather than thousands of inhabitants. The Ubaid set up new connections and similarities over a very large area, stretching from present-day Syria to the Gulf of Oman. Widespread occurrences of finely decorated painted pottery finished on a wheel, early smelted and cast metals, as well as house forms are shared from the Taurus Mountains to the Arabian Sea. Human relations with the world shifted. Metallurgy, as we will see in later chapters, involves processes often seen as magical, taking solid lumps of copper and turning them into a liquid so that they can be cast into a variety of shapes. The shift in phase from solid to liquid and back to solid can be continued indefinitely. Spears can sometimes be turned into ploughshares but certainly into axes and jewellery, or, as we shall see, regalia used for sacred purposes. In cookery it is possible to take things from a liquid to a solid form, but this is generally not reversible, as it is with metal. Once glass is invented 2,000 years later, it too has solid and liquid phases, but such substances remain rare and wonderful.

Another, more humble process, but one of immense consequence, during the Ubaid was the first use of yeast to produce both leavened bread and wheat beer, as indicated by chemical residues sticking to pots. Yeasts occur in nature in many forms, and it may be that contaminants in flour first caused bread to rise from its unleavened state. The causes for such an accident were sought and then deliberately reproduced. A further feature of Ubaid husbandry was the cultivation of tree crops, so it is possible that both grafting and artificial pollination were used to increase yields. Olives, almonds, figs (possibly first domesticated around 9000 BCE), grapes and pomegranates, together with dates from the Persian Gulf, provided a much greater range of food than previously, but also may have tethered people to land more securely through long-lived stands of trees. Many fruits are hosts to yeasts, which might then have been used in the brewing of beer and fermentation of wine.

My friend and former colleague Andrew Sherratt described the changes in the Ubaid Period as the 'diversification of desire'. People's senses were

stimulated anew by fine pottery and malleable metal, a greater variety of breads and baked goods, and the full range of fruit and nuts that we associate with the Middle East and the Mediterranean today. Not only was desire shaped anew, but consciousness was altered through alcohol and possibly other stimulants. This is the last period before writing, and we have no access to people's thoughts. We do know from Sumerian texts that all substances were considered active and animate, so the leavening of bread may have been seen only partly as a biochemical matter and more as an enlivening of the dough with the correct spirits. The inventiveness of the Ubaid would have been underpinned by a new ideology of substances that probably mixed what we call science and magic. It also saw a separation of the gods from people, allowing fresh thoughts about the universe,¹¹ as people wondered more directly about the power of the gods and their influence on human lives.

The Ubaid was a world of great change, but at its centre was a point of stability created by a particular domestic form: the t-shaped house. Villages were made up of a series of almost identical houses constructed in mudbrick, in which the hearth was found at one end in the horizontal element of the 't', and food was consumed and social life played out in the longer vertical section, which formed a central hall. Although similar in form, their size and mode of decoration differed. The site of Tell Abedeh in Iraq has been almost completely excavated, and here so-called House A is larger than most; built of thicker walls decorated with marble studs and pendants, it contains a non-domestic assemblage of artefacts, including many clay tokens. Children were buried in urns below the floor. This structure has a good claim to be a temple, both similar to houses, yet different from them.

The world's first cities developed in the subsequent Uruk Period (4000–3100 BCE), as we will see in the next chapter, and many started as Ubaid villages. In a number of instances, such as at Eridu in Iraq or Susa in Iran, Uruk Period temples have been found. Digging down under these structures revealed a sequence of similar t-shaped buildings stretching back many generations to the Ubaid. Drawing these strands of evidence together, we can come to two conclusions: the larger t-shaped buildings of the Ubaid may well have been temples (indeed the first temples that we know of); temples were modelled on domestic houses and were probably seen as

houses of the gods (and this is how they are described in later Mesopotamian texts).

The Ubaid Period has been overshadowed by the dramatic moves towards city life found in the Uruk Period, after about 4000 BCE. On greater reflection, it is clear how fully human life changed in the Ubaid, as well as how many of the changes then fed through into the world of the first cities. We can imagine small Ubaid villages on the banks of the Tigris, Euphrates or some smaller watercourse, surrounded by date palms and olive trees, herds of goats and sheep in among irrigated fields with stands of cereals to be made into porridge, bread or beer. Traders moved between villages carrying seashells for jewellery, the volcanic glass obsidian for knives and novel lumps of smelted copper to be cast into new objects of desire. The Ubaid was a period of play and inventiveness, when people thought anew about the forces and substances of the world. The creation of the gods, perhaps embodying elemental forces, allowed people to categorize and separate the forces of the world, as we shall see for Mesopotamia in the next chapter.

Although the gods separated themselves from people, they did not go too far. The house in which the gods lived was a bigger, brighter version of a human dwelling. To these new temples people brought offerings and they buried their young in the floors. Festivals to the gods may well have involved feasting and drinking, with possibly a competitive element between families. The seals found in House A at Tell Abadeh were used to cover pots and other containers, indicating ownership and the protection of contents. Some seals had complex iconography, including a being with a human body and a ram's head holding two snakes aloft. The protection given to the contents was metaphysical as well as physical, invoking spirits and powers of the world in human aid. Not only did the gods separate from people to live in their own houses during the Ubaid, but older spirits may also have been recognized; and these could be cajoled to help, or might run wild to do harm. By the end of the Ubaid, some villages had grown to ten hectares or more, indicating some groups were doing better than others. We are witnessing a dynamic world in which many significant relationships changed, with people seeing themselves, their plants, animals and possessions in a new light. By the Ubaid Period we are starting to see the development of the triple helix of magic, religion and science as somewhat formalized and separate modes of feeling and thought. In this, as in other

developments, the Ubaid Period laid the foundations for later human experience.

Human participation

If we could travel in time back to any of the worlds we have glimpsed here, we would be deeply shocked. Unknown sights, smells and sounds would confront us. We would meet plants and animals we have never seen, or in combinations that do not exist now. The atmosphere of human experiment would take us by surprise, making society changeable and unpredictable. Magic was in its element as an aid to experimentation in thought and action, helping to tease apart forms of human participation and their existential implications in these difficult and fast-changing worlds.

Two things strike us about the early human evidence from around 40,000 years ago and onwards. On the one hand, sites like Dolní Věstonice and objects such as the lion person are the products of human beings similar to ourselves in their hopes, fears and capabilities. On the other, people were living unimaginably different lives together with mammoths, lions or, much later, gazelles and wild cereals – their ecological and cultural circumstances are extraordinarily hard to reconstruct in our imaginations. In this lies their fascination, as the early evidence provides new dimensions to what it means to be human. I would add a third point: magic is a basic part of being human as far back as we have looked. We can see no easy origin to magic, because it has always been with us. Magic is crucial: people did not just aim to survive in the world, but to make sense of it, to explore their modes of participation with other substances and species. Attempts to make sense of the world occurred even in the darkest, coldest periods of the Last Glaciation. The experimental stance inherent in magic stood people in good stead as they emerged into a newly rich world after the ice, alive with all sorts of novel possibilities.

Humans are part of broader flows of matter and energy. The changing nature of such flows is especially evident if we take a long-term perspective. The planet on which we live is dynamic, never more so than in the shift across time from glacial to warmer climates. Matter and energy flowed across the Earth in novel ways, so that people were swept up into these new energies. Human inventions, whether they were the pillars at Göbekli Tepe or a new sickle for reaping cereals, were varied attempts to

harness the energies of the world. An important part of human dynamism has been the triple helix of magic, religion and science. At least 7,500 years ago religion as we know it today, that is, with some institutionalized form, makes its first appearance, complementing magic. Formalized science did not exist, but we can see that from at least 27,000 years ago people were making close observations of the Moon and possibly other astral bodies, and keeping records of their observations. Such a fine empirical appreciation of the world was also apparent in the properties of clay and many other substances. This is not science as we know it, but our ancestors had an appreciation of the physical aspects of the world and what they could do with them that fed into and complemented magical and religious beliefs. By the end of the period considered here, around 6,000 years ago, important aspects of the triple helix were starting to emerge.



3. The Magic of the Cities: Mesopotamia and Egypt (4000–1000 BCE)

If a ghost afflicts a person (so that) his ears roar, you purify yourself on a favourable day; he (the patient) bathes in well water. You go to the steppe; you sweep the ground with a palm frond. You make a figurine of the sickness out of clay from a potter's pit. You clothe it with a makeshift garment. In groups of seven and seven, you put out a food portion for it. You tie a spindle, carpeting (and) a pin at its head. You set up a reed altar before Šamaš [the god of the sun and justice, who could cure someone made ill unfairly]. You pour out dates (and) fine flour. You set up a censer [burning] juniper. You set up a vessel [with a pointed bottom]. You put that figurine before Šamaš. You must then recite a complex spell, which ends with 'May you be loosed; may you be removed; may you be removed.' You should then tie the figurine of the sickness to a tree.

These were instructions to an āšipu, a professional magical healer of Mesopotamia, which were to be pursued when a ghost of the opposite sex was trying to marry a person, with roaring in the ears a by-product of this attempted union. Should the ghost be persuaded to marry another thing, such as a tree, a cure would be effected. This was a long, complex and expensive treatment, which was also accompanied by remedies made of herbs. As JoAnn Scurlock, from whom this quote is taken, wrote, such a complex series of actions accompanying the medicine might be seen in our terms as a means of psychologically convincing the patient that the medicine would work. She also wrote: 'When we say something works

“like magic”, we do not mean it was a failure.’¹ From the great range of texts detailing herbs and their uses, we can see that medicine recognizably similar to our own was being developed from at least 4000 BCE (and almost certainly before), but also that this was wrapped around with a range of other practices that we may dismiss as magical but were then seen as vital, probably more vital than the efficacy of the herbs.

Magic has a resplendent history in the huge rectangle of land between the Mediterranean seaboard and Mesopotamia, south to north from Egypt and to Anatolia, later taking in Crete and mainland Greece. People wrestled with the constant issues of life and death, health and well-being, alternating, as we all do, between hope and fear. How to stay alive was an obvious obsession, as well as what happened after death. Attempts to see into the future calmed or excited fears. Ancient Middle Eastern and Mediterranean cultures were ordered around a pantheon of gods, and in each too magic was a developed and accepted presence, often a force that controlled the gods as well as humans. By the latter part of the period I am considering in this chapter, around 1000 BCE, an important innovation occurs: the belief in a single god. With that, the position of magic changed once again. In what follows, I shall look at each major cultural form and the magic it developed, as well as the links between cultures provided by the exchange of magical practices.

In the last chapter we encountered the world of villages that existed across the Levant, Anatolia and down into the Tigris and Euphrates valleys, now in Syria and Iraq. Just after 4000 BCE, out of this village society there crystallized towns, first in Mesopotamia and then Egypt, with later cities elsewhere (see [Figure 3.1](#) for a map of the sites mentioned in this chapter). Famous centres, such as Uruk, Ur or Memphis, became the largest agglomerations of people in the world, with novel forms of organization and power. The mass of people worked to produce food and craft products that were offered to smaller numbers of bureaucrats, priests and rulers, who promised connections to the cosmological powers on which all life and well-being depended. As human society became more hierarchical, so too did the cosmos. The pantheon of gods was often ordered by rank and power, with lesser entities, such as demons or spirits, also active in the world, towards the bottom of a great hierarchy of spiritual beings. In Mesopotamia, the human ruler had the power to intercede with the gods; in Egypt, the pharaoh was in many ways a god. As we saw in the last chapter, formalized

religion started in embryonic form in the Ubaid but then fully developed with the cities, where we have evidence of priests, temples and a fixed ritual calendar. Mesopotamian and Egyptian thought placed the gods beyond the human realm, but it was also felt that people were profoundly connected to the cosmos. Because of deep human participation in the universe, these are best seen as magico-religious forms of beliefs, with the gods transcending human power, but people also engaging personally with a sentient world around them.

Both Egypt and Mesopotamia have been described rather inelegantly as cosmotheologies, in which, although there were many gods, it was the cosmos as a whole that was worshipped. We will see differences between the Egyptian and Mesopotamian cosmologies, but certain features were shared, so that the following description holds good for both: 'The Egyptian cosmos was alive, it was at once sexual and spiritual, physical and religious, enchanted, magical and scientific.'² Most, probably all, ancient states and philosophies held that the cosmos was alive, sentient and potentially responsive to people. It is important to briefly survey the commonalities in ancient beliefs, as well as important differences, before focusing on Mesopotamia and Egypt.

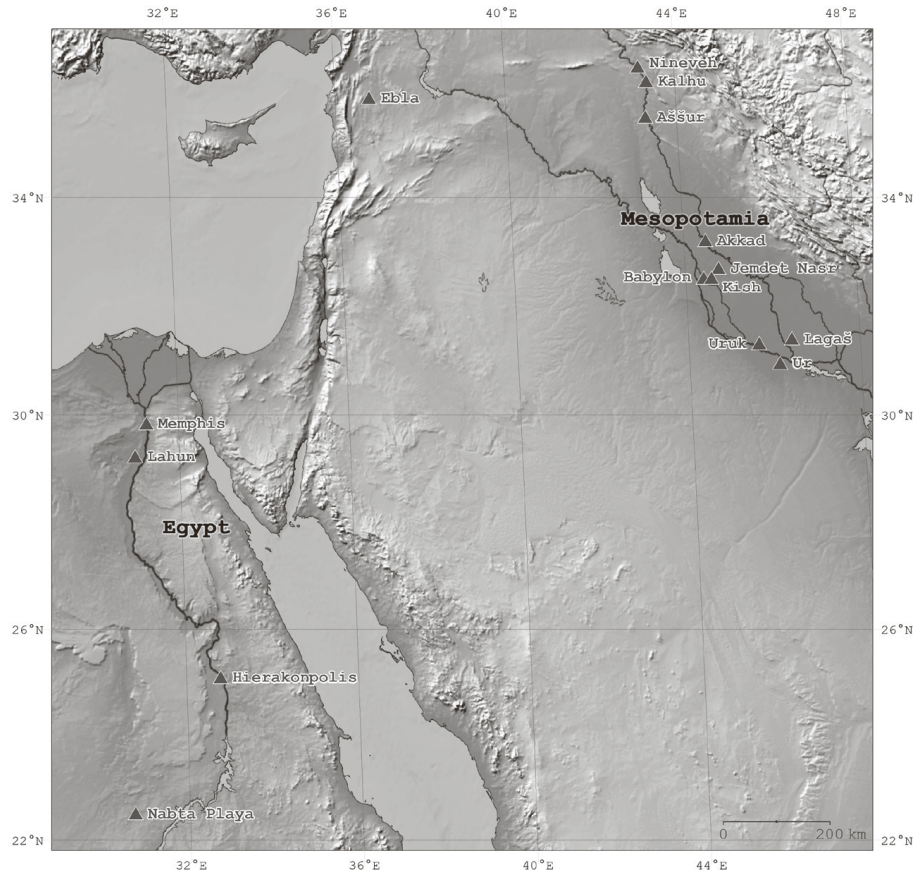


Figure 3.1. Map of Mesopotamia and Egypt with the main sites mentioned in the text.

Magic and religion across Eurasia over the last 6,000 years

In the ancient world, people did not stand apart from the cosmos. Instead ancient states and societies explored how people were partners with a sentient universe. The cosmos operated through regular rhythms and periodic events. Much effort went into understanding the regularities of the seasons or the movements of astral bodies, as well as the generally prescribed life course of people, plants and animals. Disrupting regular changes were events, many of which were dangerous, such as famine, flood, disease, earthquakes or volcanic eruptions. Once it had come into being, the pantheon of gods humanized the world, both in its cyclical processes and periodic events.

Major astral bodies were connected with individual gods, perhaps best known now in their Latin incarnations of Jupiter, Venus, Mars and so on, which had paths through the sky that wandered but eventually had some overall predictability, so that the Mesopotamians realized that Venus would

return to the same point in the sky every eight years. The energies of the Earth, of life and death, or war and love, were also personified in these ways, through gods acting in a tricky mixture of consistency and arbitrariness. Humans strove to create relationships with the gods and other powers; ritual calendars, song and dance, the recitation of mythological stories, feasts and funerals, were put in place to create human connections with the gods that would placate and please them. Suitably pleased, the deities might then care for people. Forgetfulness on either side could lead to a breakdown of order, fertility and harmony. Although a multiplicity of gods and goddesses embodied the various powers of the world, underlying apparent multiplicity was the oneness of the cosmos, its moral values and modes of care.

Pantheons of gods existed in Mesopotamia by the early fourth millennium BCE. These were perhaps built on earlier beliefs, but in their details they were the product of city dwellers enmeshed in particular forms of human power. Egypt soon also developed gods, in quite a different cultural milieu. Mesopotamia and Egypt created the first elite cultures in which a small number of people ruled the majority. Legitimacy for such elite government derived from the rulers' close connection with the power of the gods and of magic.

Magic was an important strand in the DNA of early city cultures, an element of their official construction and not something marginal or odd. As cities spread over the next 3,000 years or so, the gods spread with them, eventually being found in multitudinous local variants from the Indian subcontinent in the east to the emerging cities in Italy far to the west, as we will see in more detail in the chapters that follow. Worship of the gods encouraged forms of direct magical participation in the world, rather than outlawing them. People developed the many technologies of magic, sometimes closely linked to the worship of the gods and on other occasions as separate strands of practice, often in the hands of learned and skilled practitioners. Magic and religion were close cousins in constant communication, swapping practices back and forth.

Further east again, in areas we now call China, Korea and Japan, the worlds of belief were quite differently constituted: gods were less developed and defined. The Bronze Age states of China, from the era before the Shang through to the Late Zhou (roughly 2000–250 BCE), developed broad principles of creation and destruction but not a defined

panoply of gods. In East Asia the moving spirits were often the human dead, gradually transformed into ancestors through burial and sacrifice. They could then be communicated with by means of divination, as we shall see. People presently alive were links in a moving chain of connections stretching between the long-term dead and the generations yet to come. This chain of lineages moved inexorably forward: generations were born, matured and died, not passing out of sight but into a new realm of power inhabited by the dead. Responsibility fell on the living to honour the dead, but in turn the prestige of the ancestors depended on their ability to care for their descendants. Together the living and the dead could influence the powers of the universe. Local spirits in the landscape were understood by analogy with human chains of being; the universe was always humanized, in part at least. Similar lineage structures remain important in East Asia to this day. The ancient rulers of Eastern Eurasia stood at the head of all local lineages, holding the greatest responsibility for sacrifice and communication with the ancestors by divination.

More northerly areas of Eurasia were differently constituted again, across the vast steppes and forests from eastern Siberia and Mongolia, to that peninsula of Eurasia we now call Europe. On the steppes, power structures were looser and individual action greater. This was a more anarchistic world of animate beings, stretched between humans (living and dead), plants, animals, rocks and rivers – indeed, anything at all could enjoy the properties of life. Everything in the world acted with care and attention to everything else, partly out of positive reasons of solicitous care but also to avoid the violence of the wolf, bear, plague or deadly cold of winter. Rare human individuals were picked out and trained to identify, communicate with and bargain with animate beings of all sorts. These people some now call shamans, but we cannot be sure precisely how similar their roles and practices were to recent practitioners of that name.

From the Late Bronze Age onwards, from around 1000 BCE, new ritual and magical cultures arose in Mongolia and Siberia with eventual influences far to the west, as we shall see. Newly mobile horse-borne cultures navigated time and space across the Steppe, using large ritual monuments, which honoured the human dead and horses, as a means of anchoring themselves in the landscape and within a calendar of movement or settlement. This northern jet-stream of the human spirit was profoundly different in sensibility to more settled areas further south and was also an

important long-term cultural influence on Europe, a fact still too rarely acknowledged, but there is now mounting evidence of the connections between Central Asia and Europe from at least 1000 BCE onwards.

Returning once more to the lands of many gods, between the central Mediterranean and India, we can see one final unusual occurrence taking place in the first millennium BCE. A single god was first worshipped by the Jews, then taken up by Christians and then Muslims. The concentration of all the powers of creation and destruction in a single being was unique but never fully effective, given the array of angels and demons active in Judaism, Christianity and Islam, all often the target of magical practices in the past and still today. New monotheistic religions have repositioned magic over the last 2,500 years, as the priests became the arbiters of orthodoxy, prone to see magic as heretical, while also being partly magical themselves.

We will now enter the polytheistic worlds of Mesopotamia and then Egypt, which are unfamiliar to most of us. In engaging with unfamiliar worlds we temporarily give up assumptions we take for granted. In Mesopotamia and Egypt we enter universes that answered to their own laws, producing their own form of truth. Powerful logics exist here, but they started from their particular historical and cultural premises. The combination of magic, religion and science we encounter lasted in changing forms over many thousands of years. During that huge period they helped to sustain and give meaning to millions of lives, providing in the process the basis for later mathematical thought, astronomy/astrology, medicine, engineering, craft production and much more. In entering the world of others, we do not have to believe as they did. Indeed, this is ultimately impossible, bound as we are by our own worlds. Rather, if we can imagine with them for a while, we can understand how men, women and children wrestled with the exigencies of life and death thousands of years ago, enjoying a similar experience of success and failure to our own.

The magical religions of Mesopotamia

Magic in Mesopotamia had a long and complicated history, aiming to address the gamut of human hopes and fears from everyday worries of ordinary men, women and children to the grand projects of rulers. The powers of the universe were thought to be harnessed by human kings for the overall well-being of the city-state or empire. Magically inspired medicine

was joined with divination, omen reading and alchemy, in which astronomy linked to astrology and both were instrumental in the development of mathematics. The pantheon of gods that lived in the blue heavens above the Earth had their magical aspects; indeed, everything in heaven, on Earth and in the netherworld of demons and the dead was animate and constantly developing its own purposes. People were surrounded by a plethora of beings with which they could be on good or bad terms. Even something as humble as a piece of bread could have its own spirit and tiny intentions: either nourishment or sickness could result. Mesopotamian magic at any one period was complicated, changing too with the history of states and societies. But it also inspired much later thought and practice in the ancient world. In order to understand the complicated knot of magic, religion and science practised in the land between the two rivers of the Tigris and Euphrates, first we need some broader background of the society there from the fourth to the first millennia BCE. I will then look at magic more directly.

Cities, states and scripts

We saw in the last chapter the importance of the Ubaid Period (c. 5500–4000 BCE) in generating the developments that led to the cities of the plain in the so-called Uruk Period (4000–3100 BCE) of Mesopotamia. Ubaid villages were small, on a human scale, perhaps home to one human lineage together with their gods, who lived in an almost human house. Walking across the plains of Mesopotamia towards an Ubaid village, one would see from far off, on a clear day, houses of one or two storeys surrounded by trees and fields.

Approaching the city of Uruk (modern Warka) around 3000 BCE was to see that a mountain had risen up in the plain. Uruk, one of the most important and best-known cities, was enormous, perhaps 250 hectares in size and home to perhaps 40,000 people, still living in t-shaped houses derived from Ubaid architecture. At its centre, rising some 12 m above the plain, was the dazzling White Temple. The temple was erected on a ziggurat of mudbricks, which had four sloping sides and a flat top like a truncated pyramid. It is estimated that the ziggurat would have taken 94,000 person-days to construct, which is only a fraction of what the total ensemble required. Temples were said to have roots that reached into the underworld, with tops in the clouds like a mountain. This was the Temple of Anu, the

god of the heavens, its four corners orientated on cardinal points, with the bodies of a lion and a leopard buried under its eastern corner. Foundation deposits of this type are common in Mesopotamia; what is less usual is to bury such powerful animals. As well as its startling white walls covered in lime-wash, the temple was also decorated with mosaics.

Walking into Uruk through a gate in its massive surrounding walls, you then made your way through local neighbourhoods full of people, each area with its own much more modest temple, perhaps dedicated to the gods of a lineage. Pushing through crowded streets to reach the centre of the city, you would, should you have been allowed, have started to climb the stairs of the ziggurat, ascending above the smells, sounds and throng of the world beneath. Most of the time, we guess, the ziggurat would have been a more rarefied space. Standing finally on the platform before the temple, you could have turned to gaze on the city below and out beyond the walls, to the plains covered with fields, flocks and people working or travelling. Turning back to the high walls of the temple, you would need to skirt round to the side to enter ([Figure 3.2](#)), encountering there the statues of the god, their cores of wood covered by sheet gold, with their lapis lazuli or obsidian eyes sparkling in the semi-darkness.

The gods liked to live well, being fed by their human helpers on roast meats and refined drink, the atmosphere of the temple scented with myrrh, frankincense, pine, cedar, juniper and terebinth, much of which was obtained from considerable distances. Outside, on the ziggurat platform to the north of the temple, was a deep pit from which channels lined with bitumen ran inside, feeding liquids of an unknown kind to the gods. This was probably used only for festivals.

The history of Mesopotamia is complex. As laid out briefly in [Table 3.1](#), there was an alternation between periods with numerous, more or less independent city-states and those with larger political entities, such as that created for the first time by Sargon of Akkad around 2350 BCE. There is significant continuity of Mesopotamian culture provided by long-lived cities, worship of similar gods and a scribal tradition centred around the cuneiform script.

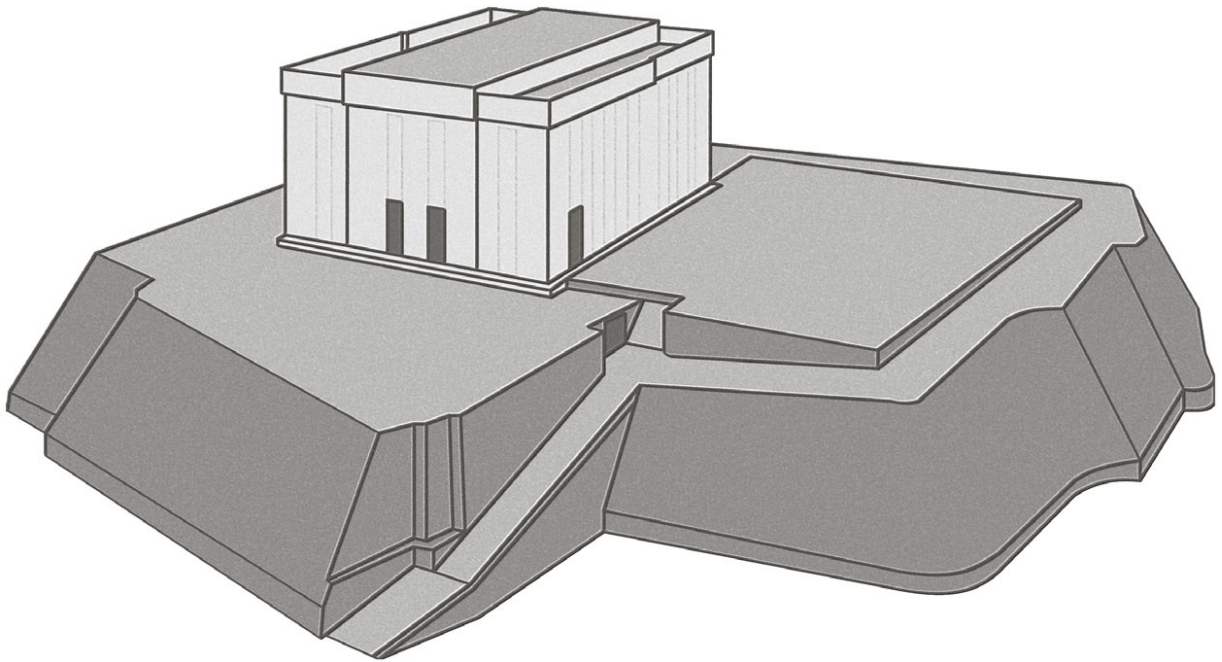


Figure 3.2. Visualization of the White Temple at Uruk on its ziggurat.

Dates	Cities and rulers	Events and processes
Around 3800 BCE	The first cities begin to develop – Uruk, Jemdet Nasr	
Around 3200 BCE	First literacy – Uruk and other cities	The first clay tablets written in cuneiform script
3000–2350 BCE	Early dynastic period – Kish, Ebla	
2350–2200 BCE	First territorial empires – Sargon of Akkad	
2150 BCE	Gudea of Lagaš	
2100–2000 BCE	Third Dynasty of Ur	
2000–1600 BCE	Old Babylonian Period; Hammurabi of Babylon, c. 1792–1750 BCE	Gradual movement from Sumerian to Akkadian language for most writing

c. 1600–1000 BCE	Kassite or Middle Babylonian Period	Zu-Ba’la family of diviners in Emar. Enuma Anu Enlil written down (probably in this period) – a series of sixty-eight or seventy tablets presenting Babylonian astrology
c. 1000–540 BCE	Neo-Assyrian Empire, c. 911–609 BCE – kings Esarhaddon, Assurbanipal Neo-Babylonian Period 626–539 BCE – Nebuchadnezzar II	
540–330 BCE	The Persian Empire (Achaemenids)	
330–125 BCE	Conquest by Alexander the Great and the Hellenistic Period	Transmission of Babylonian thought and magic, especially astrology, to the Greek world. End of cuneiform culture in Uruk and probable end of the āšipu tradition in first century CE

Table 3.1. Main events and some aspects of history of Mesopotamian magic.

Evidence from archaeology is complemented by written texts, starting around 3200 BCE, with, first, a script of pictograms depicting and enumerating objects and people, but then a fully syntactical language, Sumerian and later Akkadian. The script used is now known as cuneiform, meaning ‘wedge-shaped’, from the shape of the ends the finely cut reeds

impressed into wet clay tablets, which were subsequently dried or fired to leave a more permanent record. An important part of training to be a scribe or other specialist was to copy out older tablets to memorize their content or to reproduce older tablets from memory. The result of all this copying is a tangled mass of material, both newly composed and more ancient.³ Many hundreds of thousands of cuneiform tablets are known. Not all have been read; making sense of these tablets is work of considerable academic skill. We do know that the Mesopotamian world created the first bureaucratic culture, recording much to do with the economy but also branches of learning in which magic looms large. Collections of tablets derive from small households to major libraries, such as that of Assurbanipal in Nineveh during the Neo-Assyrian Period ([Table 3.1](#)), from which more than 20,000 tablets are known. A good proportion of these, possibly one third, relate to the lore of the *āšipu*. Many tablets come from the Old Babylonian (2000–1600 BCE) or Neo-Assyrian (c. 911–609 BCE) periods; however, some of the learning in them will go back to the start of writing and most probably earlier.

For all its magnificence, the Mesopotamian world is a culture of mud, with its crops grown in wet soils irrigated by the rivers, with its pots, houses, temples and their tablets all made, in varied ways, of clays from the rivers. Rooted in mud, Mesopotamia created gods. The Mesopotamian pantheon is confusing and changing. The same deity had different names in Sumerian and Akkadian. They embody various elements and aspects of the world: Anu the sky, Sin the Moon, Ishtar the goddess of love and war, connected to the planet Venus. Over time, various groups came to power ([Table 3.1](#)). With the ascendancy of the Babylonians, their god Marduk was recognized by humans as the superior power. In the earliest third-millennium accounts the gods have a tendency to be, rather than to act. Deities were within nature and hence natural, not supernatural. Similarly, human society was part of nature and in that way continuous with the gods. In the theistic religions of Christianity, Judaism and Islam, God is a broad and general power, almighty but ultimately unknowable. But the early Mesopotamian gods were the power of the Sun, the Moon or the waters, so they gave rise to a way of thinking about these aspects of life, causing people to discuss them and think about how to deal with them, in all senses of the word ‘deal’. As time went by, the gods became a little more like humans, developing their own purposes, strategies and rivalries. The *Epic*

of *Gilgamesh*, from the third millennium BCE, has as its eponymous hero someone who is part king and part god, wrestling with issues of mortality and meaning. Here human questions are projected on to a cosmological plane.

There were hierarchies of entities, with gods at the top, having also some hierarchies of their own; beneath them were demons and spirits, with the latter both good and bad. Humans were created from a mixture of clay and the blood and body of a god. Their role was to feed and clothe the gods, to take them out of the temple and to celebrate them with special festivals. The human king was mostly not a god, but could intercede with deities, attempting to channel the powers of fertility, health and well-being, averting destructive forces. The statues of the gods were in some senses alive, acting as portals between heaven and its powers and the Earth with its needs. Divine statues were made of much purer substances than other things. Once made, they were animated through a ceremony called ‘The Opening of the Mouth’, which enabled them to breathe and speak. The details of this ceremony were appropriate to each god, though in every case the flesh of the god was animated and its surroundings were purified. The statues were not representations of the god; they *were* the god. Gods were hungry and needed attention.

In the underworld dwelt the spirits of the dead, who could affect the living, along with a range of other devils, potentially troublesome. Gods were treated respectfully at all times, but lower-order spirits and the ancestral dead could be cajoled, mistreated and forced into acts through binding oaths or attacks on their effigies. The quote at the start of the chapter outlined how an *āšipu* was to perform the exorcism of a ghost attempting to marry a living person against his or her will. Spoken or written spells produced powerful effects.

In such a world, the gods were magical and magic was needed to influence spirits. The gods generally had the ability to cause flood, famine or war. Spirits, demons and ghosts were responsible for more everyday occurrences but still serious ones, such as sickness, the death of a child or a worldly set-back. Magic reached from the running of the state to the most everyday of worries.

The trained magician: the āšipu

In the mid seventh century BCE, a young man called Kišir-Nabu, who was the son of a long line of exorcists or magicians affiliated to the temple of the god Aššur, in the city of Aššur, compiled an impressively long list of all the works that an āšipu should have mastered. This has become known as the *Exorcist's Manual* and is worth considering in some detail, as it gives us a sense of the range of expertise needed and the parts of Mesopotamian life the activities of the āšipu reached. In abbreviated form the accomplishments of the āšipu include:

Temple rituals

Rituals for the foundation of the temple, the induction of cult images ('washing of the mouth') and the installation of priests (lines 2–3 of the tablet).

Sumerian incantations addressed to the Sun-god, prayers in Akkadian concerning 'lifting-of-the-hand' and rituals for appeasing an angry deity (line 4).

Rituals for the king

Rites for individual months and specific ceremonies pertaining to kingship, probably rituals performed by, and on behalf of, the king. These are briefly stated in the *Exorcist's Manual*, but are nonetheless a crucial part of the work of important āšipus (line 5).

Diagnosis, purification and rites to counteract demons, witches and curses

A vital element of the āšipu's work was to counter or treat the effects of various forms of attack from demons, witches and curses. Four extensive diagnostic and prognostic series are given and then compendia with mainly Sumerian incantations against demons (lines 6 and 7). The following lines list general purification ('wiping') rites and a group of interrelated compendia of Sumerian incantations against various illnesses, evils and demons (lines 8–10). Purification rituals, including *Bīt rimki* ('Bath-house') and *Bīt mēseri* ('House of Confinement'), are named, together with 'Washing of the Mouth' rites (line 11). Lines 12–14 are mainly devoted to various ritual series against witchcraft and curses. The list continues with

measures against evil-portending dreams, rituals against impotency, and texts pertaining to pregnancy, childbirth and infants (lines 14–15).

Specific medical ailments

The next section (lines 16–18) lists rituals and incantations to counter diseases affecting specific body parts, nosebleeds, vomiting and diarrhoea, followed by incantations against snake-bite, scorpion sting and the *sāmānu* (‘redness’) disease (line 19). Measures for the protection of a man’s house, especially against epidemics, are followed by rituals to ensure the acceptance of offerings (line 20). After ceremonies pertaining to settlements, houses, fields, gardens and canals come rituals against storm damage and field pests (lines 21–2). The list moves on to rituals that promise protection during travel and on campaigns, followed by purification ceremonies for the cattle pen, sheepfold and horse stables (lines 23–4). Finally, rituals for favourable omens and oracles are mentioned, and at the end of the long list stand pharmacological texts pertaining to plants and stones as well as instructions on how to arrange such drugs on strings to form amulets (lines 25–6).⁴

This list of skills and knowledge maps out most of the hopes and fears of Mesopotamian society, from those held by the king and priests at the top of the social hierarchy to those working in fields, canals, sheepfolds or horse stables. The blurred boundary between what we call religion and magic is demonstrated by the temple rituals, both those used for the foundation of a new temple complex and those for the induction of statues and of priests, the former seen as living presences. Within Mesopotamian city-states and empires the well-being not just of the ruling classes but of all within the state depended upon the relationship the ruler had with cosmic powers.⁵ The positions of Sun, Moon, planets and stars were vital indicators in the heavens of the state of things on Earth, as were meteors, cloud formations and mists. Magical practices were vital to the good running of the state in general, but advice was also sought before the king travelled, went into battle or undertook a major project, such as the building of a new temple. Similar signs could be read for the smaller projects of the mass of people, and these were of course as important for the individual as grand projects of state were for a ruler. Demons, human ghosts or witches could bring

personal disasters, whether this be the death of mother and child during birth, or being assailed on the road when travelling. Regular events, such as the death of a cow, were nonetheless devastating for the poor, so steps were taken against demons or witches who might occasion such disasters. The travails of the present were within the purview of the āšipu but also the possible dangers of the future.

Families of āšipus and their training

From the texts, we know of a number of families who were āšipus for several generations. Being a magician was clearly an honourable profession, one that people took seriously and tried to perfect, as does any other skilled practitioner, past or present. For instance, Sargon II's great adviser was Nabu-zuqup-kenu, who was based at Kalhu, as were his sons Adad-šumu-ušur and Nabu-zero-lešir, Esarhaddon's chief āšipu and chief scribe respectively in the early seventh century BCE. Other lineages of āšipus are known. One house in Uruk excavated by a German team in the 1960s and 1970s was occupied by the Šangu-Ninurta family for several generations, until about 420 BCE, and the Ekur-zakir family, who lived there about a century later – both families were known as āšipus. Anyone wanting to consult an āšipu in Uruk during those centuries would have known which house to visit for expert advice. Such houses and families would have been common across Ancient Mesopotamia, part of the fabric of daily life and practice for both rulers and the majority of the population.

To become an āšipu, the ability to read in a number of languages was needed, including obscure forms of Sumerian, Akkadian and Aramaic. Writing out texts on clay tablets was an important means of learning, but texts were also written as part of a performance for a particular client, showing the power of words to influence the working of the world. When practising astrology, which we will come on to below, two sets of texts were important. *Enuma Anu Enlil* (which translates as 'When the gods Anu and Enlil ...') was the major compendium of information on omens to be read from heavenly bodies. These numbered over 6,500 omens recorded on sixty-eight or seventy tablets (and our knowledge of these is probably incomplete). There is no possibility that any individual would have memorized all of these, but a knowledge of the major types of omen would have been necessary. For instance, if the Moon was visible on the first day

of the month, this indicated general happiness, or a halo around the Moon on this day presaged success for the king.

Lists of omens were compiled in the Old Babylonian Period (2000–1600 BCE), if not earlier, to be formalized in the following centuries. In the fourth and third centuries BCE lists of omens were transmitted to India, where they were a considerable influence on astrology there. The rather later star lists, contained in the series of tablets now known as MUL.APIN (the name of the constellation known in English as the Plough), most likely compiled around 1000 BCE, contained information on sixty-six stars and constellations, with their rising, culmination and setting dates as judged against three paths across the sky. Such information formed the basis for the Babylonian star maps, which we now see as basic to astronomy, but which also allowed an understanding of the influence of these stars on human affairs.

The link between knowledge and perception was acknowledged, because only people with sufficient training could understand the significance of what they saw. Such knowledge was a factor fostering inequality: the higher up the social spectrum someone was, the more knowledge they would have had access to. Many divinatory texts ended with the sentence: ‘He who knows, may see it; he who does not know, may not.’ The world presented many faces and aspects. On any one night, a cloud formation, a halo around the Moon, the nature of the wind or a small meteor shower could be indicative of events to come. Knowing what was significant and what was not was crucial, as it is in any form of scientific observation today. Knowledge came not just from observation itself, but from the framework of significance that gave the world its sense.

The *āšipu* was highly trained and operated in the elite stratum of Mesopotamian society, but we can glimpse other, more shadowy figures, such as the snake-charmer (*mušlahhu*), the *eššebû*, or ‘owlman’, and the *qadištu*-woman, who offered their services in the streets of cities and villages. It is not always clear what these people did (with the probable exception of the snake-charmer), but magical activities on the streets and in the houses of the Mesopotamian world were an everyday occurrence. The snake-charmer and the owlman were regularly accused of witchcraft, of which foreigners were often suspected too. Witchcraft could inflict illness or misfortune on people, with a list of diseases and disorders that were known as *qāt amēlūti*, ‘hand-of-men’(-disease). When treating illness,

medicines were seen to deal with the immediate symptoms, but ritual actions got to the root cause of the problem, which often emanated from the spirit world in some manner. Lists were made of forms of prohibited witchcraft, which may have been practised by some of these less official persons. Misfortune resulted not just from witches but also from demons, or from curses that punished the transgression of a taboo, or contact with tabooed substances, angry deities or ghosts.

Demons featured prominently and had their own histories, which are still to be fully written. Demons were low-ranking creatures of the divine sphere that roamed the wilderness and mountains, from where they could raid human settlements or houses. Demons flew on the wind, slipped into the house through a window or unbolted a door. Many were monsters. Lamaštu was a lion-headed creature with donkey's ears, dog's teeth and the claws of an eagle. She was prone to attack infants and women before, during and after childbirth. Preventative rituals against her could be carried out: for example, destroying or removing figurines in the form of Lamaštu, or wearing amulets depicting Lamaštu. Once an attack by Lamaštu had occurred, various remedies were possible, especially against fever. A group of amulets depicts Lamaštu being driven out by her fellow demon Pazuzu, forcing her to retreat across the Ulaya River and back into the wilderness.

Mesopotamian divination

Crucial to the activities of the āšipu was divination. Divination in Mesopotamia took two basic forms: astrology and extispicy. We will dwell more on star lore, but extispicy was also important and involved the inspection of animal entrails, particularly the liver and lungs, to look for any unusual structures and formations that could throw light on future events of interest. Extispicy was grounded in highly structured and nuanced knowledge, sometimes involving word-play: 'If the coils of the intestine look like the face of Huwawa [written logographically hum.hum], it is the omen of the usurper king [Akkadian *hammā'u*] who ruled all the lands.'⁶ Huwawa (or also Humbaba) is a demon raised by one of the gods, whom we know through the *Epic of Gilgamesh*, whose face is often depicted with winding patterns that do look like intestines. There is here a visual resemblance between Huwawa's face and the intestines viewed in extispicy, and also the sound of the demon's name echoes that of the usurper king

Hammā'u. We can see here the complexity of the connections made across the world in divination and other practices.

Answers in divination did not come easily: the diviner had to perform an elaborate ritual to obtain the desired information. The whole procedure was presented as a dialogue, the diviner posing the questions to the gods. 'Does your great divinity know it? Is it decreed and confirmed in a favourable case [of extispicy] by the command of your great divinity, Shamash, great lord? Will he who can see, see it? Will he who can hear, hear it?' The god should know the answer and be willing to make it known to the human enquirer. The closing formula of many divinations went as follows: 'Be present in this ram; place an affirmative answer, favourable, propitious omens of the flesh of the query by the command of your great divinity, so that I may see them.' One complex first-millennium ritual lasted from sunset to sunrise, during which one or more sheep were sacrificed.⁷

Astrology was the other great branch of divination, as we have seen. Mesopotamian traditions derive from the preliterate world of the Ubaid and before. In earlier periods it may well have been so-called 'horizon phenomena' that were important, concentrating on the rising and setting of important bodies, prominent among which were the Sun, Moon, visible planets and stars. Astrological knowledge was formalized first in the Old Babylonian Period and especially in the Neo-Assyrian Period, in the middle of the first millennium BCE. During this period the so-called King's Watch was instituted in the eighth century BCE, continuing to the first century BCE. On a nightly basis specialists would observe the Moon, stars and planets, recording details of their positions and movements, making this a longer programme of observation than anything in modern science. Also, during the first millennium BCE, there was a movement towards greater mathematical modelling of celestial movements, which allowed diviners to predict the rising and setting of the planets of great interest. Babylonian lunar and planetary tables (or ephemerides) pulled this information together, forming the basis for the refined versions of these tables that are still in use by astrologers and others today.

An important development was the creation of the zodiac in 460 BCE, comprising twelve constellations of stars through which the path of the Sun and the Moon passed in the course of a year. Each star sign (as we would now call them) occupied thirty degrees of arc across the sky and became visible one after another through the year. In 410 BCE the first known

horoscope was created, used to predict the life course of an individual from the position of important planets and stars at their birth. Previously prediction had general aims, understanding the likely fate and future of the kingdom as a whole, or some significant segment of it ([Figure 3.3](#)). Now the individual came more to the fore, a change that was to have very considerable later echoes. In this latest phase of cuneiform culture, an attempt was also made to connect extispicy with astral prediction, by dividing the liver of a sheep into twelve sectors, paralleling those of the zodiac.

Linking extispicy and astrology brought together the two great realms of the Mesopotamian cosmos: the world below and that above, with ghosts and demons moving in the airs between the two. Mesopotamian magic encompassed both domains, attempting a three-dimensional map of the totality of ways in which people participated in the world around them. Such a complex map of mutual interactions would allow past, present and future to be understood not so much in terms of cause and effect, but more through following the correlations between things. Anyone could attempt to follow such skeins of connection, but great learning was needed to pursue a consistent thread through a mass of phenomena. People like the *āšipu* could draw on millennia of learning and observation, which had deep historical roots, but also shifted constantly with the needs of the rulers and the ruled.

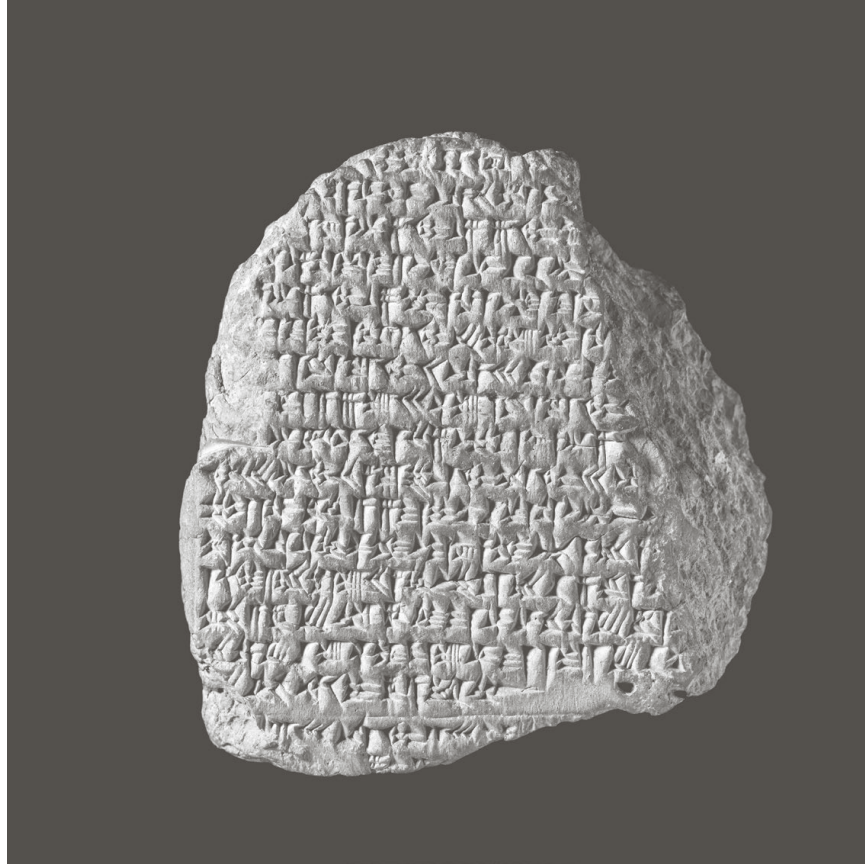


Figure 3.3. Clay tablet – a fragment of a Babylonian astronomical diary discussing astronomical and meteorological phenomena observed during the year 331–330 BCE, months 6 and 7. Mention is made of the defeat of Darius III by Alexander the Great and of Alexander’s triumphant entry into Babylon.

To the south and west of Mesopotamia, along the single river of the Nile, another equally complex magical culture grew up, which was also to have continuing historical effects down to the present: that of Egypt.

Egyptian magic

In Egypt, as in Mesopotamia, magic was part of the official fabric of the state and a crucial set of techniques for averting danger or ensuring well-being. As a leading scholar of Egypt has written: ‘Recent scholarship has consolidated a consensus that “magic” was integral to Egyptian thought, in which it was a basic cosmic force, not a marginal or disruptive phenomenon.’⁸

Over the last 1,500 years, Egypt has achieved cult status in various parts of the world, something that has never happened with Mesopotamia. The

Greeks and Romans created a rather garbled picture of Late Egyptian mysticism, later transmitted to the Renaissance world of Europe. After the deciphering of hieroglyphs by Jean-François Champollion in 1822, the world gained a more accurate picture of how Ancient Egyptians thought and acted. The combination of severe order and deep strangeness revealed in this Egyptian world still exercises a strong effect today. The order Ancient Egyptians sought was underpinned by forms of religion and magic linking the living and the dead, the cosmological world of the gods and daily human life. We see our world as ordered through natural regularities, as well as social and political contracts among people, so that an Egyptian stress on the other-worldly looks mystical, baffling and alluring; the Egyptians' approach to their world made sense in their terms, but it rested on premises many of us would struggle now to accept. That Egyptian religion and magic developed over more than 3,000 years does indicate that a combination of magical and religious beliefs worked for millions of people over millennia, and in that sense, if in no other, it was efficacious.

In contrast to Mesopotamia, Egypt was unified into a single state, rather than generally being composed of competing city-states (see [Figure 3.1](#) for sites mentioned in the text). At the head of the Egyptian state was the pharaoh, who was a god on Earth, an instantiation of Horus and the son of the Sun god. The godly status of the ruler allowed him to channel cosmological powers to the Earth, which, when the realm was working in harmony, guaranteed a supply of food, human fertility and relative freedom from harm. Attaining such a state of harmony needed constant work by the pharaoh and the priests of temples throughout the country who cared for the gods, using means we would characterize as both religious and magical.

All discussions of Egypt focus strongly on the Nile, rather than on the wastes of the surrounding deserts. The Nile, however, did not always form a fertile strip through the desert: before around 3600 BCE, the Sahara was still relatively green. From the seventh and sixth millennia BCE, what became Egypt was home to mobile cattle-herders, who, at sites such as Nabta Playa in a wadi in the south, put up stone circles, which may have had astronomical/astrological alignments, with sculptures of cows and thousands of cattle bones that are probably the remnants of feasting. Unlike the deep history of the Levant and Mesopotamia, where, as we have seen, there is a long, slow history of settling down, sedentary life in Egypt came more rapidly. From around 3600 BCE, desertification made the waters of the

Nile increasingly attractive, and settled communities become common. Only a few centuries later, large settlements are built, with architecture recognizably ancestral to that from Pharaonic Egypt, and, by 3300 BCE, the first hieroglyphic writing is in evidence. The Egypt of towns and temples starts suddenly, for reasons still poorly understood.

People clustered into the Nile Valley, growing crops as well as keeping animals. The annual flood was central to life. The monsoon cycle in the Indian Ocean causes heavy rain on the Ethiopian Plateau from June, with rising waters around the First Cataract near Aswan by the end of that month. Waters rise through the Nile Valley from July to September, lasting into October in the delta, and the Egyptian state created impressive means of measuring water levels. Too much water drowned people and animals; too little would mean crops were insufficient to feed growing numbers of people, with at least two million people crowded into the valley and delta by the time of the pharaohs and probably very many more – we know much more about monumental architecture and the elite along the Nile than we do about the numbers and conditions of ordinary people. As soon as the waters receded, crops were sown, using both the moisture of the floods and the silt they brought. New annual deposits of soil allowed Egypt to maintain high fertility and yields over many millennia, until the post-Roman Period, when the sophisticated system for managing water and silt broke down. This occurred at a similar time to the decay of the ancient temples, as Christianity became dominant, followed by Islam.

By the late fourth millennium there appear to have been three polities along the Nile, and these first developed some of the architecture and art we know from later periods, for example, at the Painted Tomb in Hierakonpolis, around 3500 BCE (for the overall Egyptian sequence, see [Table 3.2](#)). The unification of the Nile Valley and the Nile Delta into one was probably achieved through conquest. By around 3100 BCE there appear records of the first pharaoh, ruler of the joint kingdom stretching from Upper Egypt in the south to the still-expanding delta in the north. We know the first pharaoh as Narmer, from the two hieroglyphics for catfish and chisel associated with him, although there is no consensus that this was his name. Written records on tomb inscriptions and some documents were still scarce at this time, and we are not always sure what they mean.

Champollion demonstrated that the hieroglyphic script was partly phonetic, reflecting the sounds of words, and partly ideographic, with

pictures of the concepts it contains. Scripts also show us that Egyptian was an Afroasiatic language, related to some African languages to the south and to Semitic languages, such as those in the Levant and Akkadian in Mesopotamia. The Egyptian language, vital to the nature of magic and religion, continued in use until it was gradually replaced by Arabic in the Medieval Period, after the Islamic conquests of 642 CE. Some residual forms of the language may be preserved in Coptic and especially in secret Coptic Christian rituals, which created varied magical traditions. After 1822 there was a minor scholarly revival of the language, and now a few hundred scholars worldwide can read hieroglyphs and understand something of the cultural context of the language. It is to this knowledge and the results of archaeology since the nineteenth century that we owe our current understanding of Egyptian cosmology, and all other elements of the Ancient Egyptian world.

Period	Dates	Events and processes
Naqada (southern Egypt)	4500–3100 BCE	
Early Dynastic Period (dynasties I–II)	3100–2670 BCE	Unification of Nile Valley. Appearance of magical wands
Old Kingdom (dynasties III–VI)	2670–2150 BCE	Composite animals first evidenced – extension of gods
First Intermediate Period (dynasties VII–X)	2150–2040 BCE	Story of Horus
Middle Kingdom (dynasties XI–XIII)	2040–1650 BCE	
Second Intermediate Period (dynasties XIV–XVII)	1650–1550 BCE	
New Kingdom (dynasties XVIII–	1550–1070 BCE	Akhenaten reforms

XX)

Third Intermediate Period (dynasties XXI–XXV)	1070–664 BCE	
Late Period (dynasties XXVI– XXXI)	664–332 BCE	
Graeco-Roman Period	332 BCE–350 CE	Influence of broader Mediterranean world
Arab Conquest	642 CE	Arabic replaces Egyptian

Table 3.2. The main periods and dynasties of Ancient Egyptian history.

Gods and magic

Egypt is most famous for its pyramids, but the central institution of the Egyptian state was the temple, which housed the gods and the priests who looked after them. The pharaoh was a god on earth. Egyptian gods are many and confusing, and, although there is a central core to Egyptian beliefs over around 3,000 years, there is also considerable variation; different gods come to prominence through time, the mythological stories shift, and new forms of iconography are used. The gods varied partly because they were exemplary of all the different powers in the world, but also because they were tied to earthly affairs. Temples were keen to push the importance of the gods they looked after, and pharaohs also played politics with religion, most famously Akhenaten, who attempted a fundamental reform of religion around the Sun god, Aten.

The universe, for the Ancient Egyptians, appears to have been composed of a series of powers in a state of flux, which always alternated between harmony (*maat* designates ‘harmony’ or ‘balance’) and chaos. Unlike the Mesopotamian gods, who were always defined individuals, Egyptian gods crystallized out of the cosmic flux, so that they could combine and recombine, embodying complexes of characteristics as much as totally discrete entities. In the beginning, the primary deity, Atum (known too as Ra), initiates the cosmos through emanations of himself, expelled through

sneezing, masturbating or spitting. In this very physical manner, he creates something of a genealogical hierarchy of entities, down to Horus, who was incarnated as the pharaoh. In contrast to Mesopotamia, there is no mention of the creation of people or their cosmological role.

An Egyptian leader needed knowledge not only of magic but also of engineering and architecture. Such knowledge allowed a person to make a difference to the world, because they had a deeper understanding than the majority. All three of these skills have left a lasting legacy in the world, with Egyptian magic echoing down the ages along with the pyramids and temples along the Nile to become a vital strand of later magical traditions.

One of the important powers of the Egyptian universe is *heka*, to which both gods and people are subject. This was the power that made creation possible and is often translated as ‘magic’. For the Egyptians, magic was both a force of the universe and a set of practices. A bit like the Force in *Star Wars*, *heka* is neither inherently good nor inherently bad: its effects depend on the intentions of those who wield it. There is a moral dimension to *heka*, but, having said that, there is little sense of black magic or witchcraft. The gods are more likely to misuse *heka* than are people. And Ancient Egyptians made little distinction between the sacred and the secular worlds: daily life is infused with the actions of gods and demons. As a consequence, there is no notion of a cosmic realm above nature. The separation we have come to make between science and religion did not exist in the same way in Egypt.

Furthermore, magic and religion were continuous: the gods were subject to *heka*, as well as being instantiations of its power, and some humans had greater control of *heka* than others. From this it follows that magic was not supernatural. As a practice, magic was one of the instruments available to people to hold the universe in harmony, although obviously complex training and considerable skill were needed for such large tasks; more humble magic could be used to shield from harm or to help cure minor ills. There was a spectrum of practitioners, from the priests of the major temples, with long training in how to wield *heka*, to men and women in villages who might protect the cattle herd from crocodile spirits when crossing a river, or a newborn baby from demons. For temple priests, written transmission of spells was vital; for more humble magic, oral transmission sufficed, so that we now know more about the former. The priests were also not moral teachers but paid specialists with defined duties.

Temple priests could undertake private magical practice, for a fee, and the better-off could employ them in cases of real need, making private use of long state-funded training. Large temples had a House of Life, in which a library, a scriptorium where manuscripts were copied and a classroom were combined. Houses of Life also helped to create learned communities that could debate a range of cosmological and earthly matters.

It is worth bearing in mind the distinctive features of temples compared with mosques, synagogues or churches. Egyptian temples were not designed for congregations to worship; rather the opposite: they were to house gods in seclusion. In the form of their statues, they were clothed, fed and cared for in the temples. Such seclusion was interrupted regularly, when the gods were brought out on festivals, although still concealed in shrines covered in cloth. The town of Lahun had thirty-five annual festivals, some lasting for several days, and the general populace would have participated to various degrees, able to enjoy the food and drink of the temple, along with the gods. Harmony was the aim of the temple, but crisis was built into the magico-religious structure, with the passage of the Sun into the underworld every night a minor threat to life, with no absolute guarantee of return.

The gods were many, and each of them could take a variety of forms. Two narrative cycles were central to Egyptian thought and history: the stories of Osiris and those connected with the Sun. Tales of Osiris, Isis and Seth were found in many forms through much of Egyptian history. Horus, incarnated as the pharaoh, was the son of Isis, a protective deity, and the hieroglyph of her name resembled a throne, as she was the first seat or throne of each pharaoh. Horus's father was Osiris (Isis's brother – their father was the Earth god, Geb, and their mother the sky goddess, Nut), who had been mummified after being killed in a battle with his brother Seth. This story dates from no later than the Fifth Dynasty (2400 BCE), combining many crucial elements of Egyptian thought and belief. Osiris was linked to order and *maat*; Seth with chaos. Their rivalry and fights encapsulate the struggle between order and disorder. The murder of Osiris is never clearly described, as it was thought that words could bring into being the situations to which they referred (more on the power of words below). In one scenario, Seth ascends the throne and a period of disorder ensues. Isis (sometimes accompanied by their sister, Nephthys – who in turn might be

the mother of the jackal-headed god, Anubis, who embalms the dead) searches for Osiris, who takes the form of a falcon.

By the New Kingdom, the story is linked with the Nile flooding, caused either by the tears of Isis or the bodily fluids of Osiris. Seth and Horus battle, which variously involves violence and sexual attack: Seth removes Horus's left eye and Horus damages Seth's testicles, causing a loss of virility and strength. Horus is a sky deity, and his right eye represents the Sun, the left the Moon. The putting out of Horus's left eye indicates the darkening of the Moon in some of its phases. There are a variety of resolutions to the struggle, but in most Horus ascends the throne, thus providing a narrative explaining the power of the ruler.

The pervasiveness of these myths, which were known by all levels of Egyptian society, indicates a major difference from many cultures today. To understand your subjective experience by means of widely shared myths produced a different balance between the individual and the group. Individual and group experience was joined in this way, but also the events of people's lives were linked to the movements of the Sun, Moon and other aspects of the cosmos. Not only were stories like that of Osiris used to explain astronomical events and the power of the ruler; they also became the basis for many magical spells, such as those that can protect a child once bitten by a snake, or protect them from snake-bite, or, indeed, the dangerous energies snakes represented. The travails of Osiris as a child and the protective acts of his sister, Isis, become the basis for human protection. More oddly to us, the spells used by Isis to allow Osiris to copulate with her, although he was dead, could also be used to help a dead husband beget a child on his still-living wife. The most common instance of the myth in everyday life was the protective amulet in the form of the Eye of Horus, which could help to ward off a range of ills, presumably on the basis that Horus warded off, and eventually defeated, chaos in the form of Seth.

The gods often shifted shape or combined forms. The female figure of Tawaret had the body of a hippo, with a crocodile on her back, pendulous human breasts and lion's paws. She often holds a knife and touches a hieroglyph meaning 'protection'. Combining attributes in this way was not a sign of confusion or ambiguity but an advanced magical technique in which characteristics of a number of animals and humans were brought together to powerful effect.⁹ Tawaret appears on a number of objects, including the so-called magical wands or knives made from hippo ivory,

ebony (this being one of the few Egyptian words to enter English) or glazed steatite, putting the power of substances like hippo ivory into the hand of the magician ([Figure 3.4](#)). Wands first appear around 2800 BCE, when they have the heads of fierce animals, such as panthers or jackals, at their terminals. From 2100 BCE we find complex carvings of animals, but also what to us are imaginary beings, such as the Seth animal (a composite bringing together the features of a dog and bits of many other creatures), Tawaret, griffins, a double sphinx and a naked bandy-legged dwarf with a lion's mane, known as Bes, a popular protective deity; sometimes the Eye of Horus is depicted, and Thoth aiding Horus. Later examples have inscriptions calling for the protection of named people, including those of lower social status. These wands were last made around 1650 BCE, after which there is a greater range of iconography, with deities depicted on non-elite tombs for the first time. Protection may shift from the wands to these images on tombs and votive stelae, so that protective images could not be carried round with people; they had to visit the temple. Perhaps for this reason the great state temples became more accessible to ordinary people in the seventeenth century BCE, as the history of magic undergoes shifts.



Figure 3.4. The goddess Tawaret appears on a number of objects (*top*), including the so-called magical wands or knives made from hippo ivory, ebony or glazed steatite.

An important element of magical knowledge was to name things truly and to understand a deeper order of reality and connections behind that of appearances. Egyptian society differed from our own in the relationship between words, images and objects. Ancient Egypt created numerous famous images, painted and carved in temples and tombs, of both mythical and actual figures. Many of these could be activated by using the correct spells and put to work. Images were not representations as we would see them; they did not stand for the thing or person pictured. They *were* the thing or person. We tend to think of images as representations because we can only ever see them in their inactive state. The mummy that terrorizes the living or the temple statue that lumbers into life in a current film is a debased version of an idea Egyptians held. Images and statues could be seen as having dormant or active states, so the correct magical procedures would be able to wake and activate them.

There are two aspects to bear in mind here. Not only can things become active and in a sense living; they are enlivened through the power of words.

For Egyptians, words were very powerful, in their written forms and most particularly when spoken. Speaking was an act that could cause things to happen. Reciting or singing a spell out loud was an integral part of magic. Powerful knowledge involved knowing the true names of things, with the real names of the gods, which were secret, obviously most important. If something could be called by its real name, resistance was difficult. Tracing links between objects and substances allowed effects on one thing to flow through to another – links of colour or the sound of a name might connect gods or things in complex chains of cause and effect. The expression ‘to do green things’ indicated actions that aided fecundity or had a general purpose, through the links between green and life. Conversely, ‘to do red things’ was negative, invoking images of danger, connected with the colour of blood. Statues or representations of the god Thoth (the god of wisdom) were generally blue, linking these to the sky and clear water, both of which had connotations of expansiveness, powers of creation and knowledge.

Not only could grander things, like temple reliefs, come to life but so too could the more humble, such as amulets. One Egyptian catalogue lists 275 main types of amulets, which probably does not include all kinds, so varied and numerous were they.¹⁰ Amulets were placed in graves with the body, showing their personal nature. A lengthy process of consecration was needed to activate an amulet: we know in an example from Roman Egypt that the enlivening of an engraved gem could involve a complicated invocation of Egyptian, Greek and Jewish deities, carried out three times a day for fourteen days, while pouring libations and perfumes. On the last day a black cock was sacrificed, cut open and the gem left inside for twenty-four hours. After this, the amuletic gem was alive. A range of gems – from lapis lazuli to garnets, red quartz to pearls – was important, and here again the broader connotations of colours were crucial. In earlier periods there were other rites of consecration, but in all periods activation was vital. Some amulets gave general protection; others were worn for specific ills. Many amulets were often little models of important symbols – a scarab beetle, a lotus, the Eye of Horus ([Figure 3.5](#)). They could also protect specific parts of the body. The stomach was the seat of the emotions, so things worn on belts to protect people’s feelings were common; the pelvis for women was associated with pregnancy and birth, requiring special protection; headrests were sometimes decorated with magical images to ward off bad dreams and the demons who were more active at night. The

number of amulets seems to be a measure of the security of an age, although no one has tested this strictly; in periods of security, such as when the pyramids were being built (2700–2200 BCE), or the New Kingdom after 1500 BCE, there were fewer than in the insecure times at the start of the second millennium BCE.

Six volumes of the *Secrets of the Magicians* were kept in a number of temples and combined what we would see as medicinal remedies with spells. The language of magical texts is obscure, and it is often hard to know which ailments are being discussed. In some modern translations magical elements have been left out, giving us a skewed idea of Egyptian healing practices. Both elements, the herbal medicines and the magic, were based on elaborate theories of how the body worked – as Geraldine Pinch, an expert on Egyptian mythology and magic, has written, ‘seemingly bizarre treatments can be the end result of a careful process of thought.’¹¹ Perceived similarities and oppositions were at the basis of many cures. Much excrement was used, but this was on the grounds that conditions like sluggishness of the bowels or difficulties of digestion needed encouragement from other forms of waste product, such as fly or ostrich excrement. Statues depicting illness or wounds had water poured over them, which could then be drunk to aid a cure, although with snake-bite or scorpion sting the priest would also cut open the wound to remove the poison. Late-second-millennium spells for people with a bone stuck in their throat involve an incantation over a cake the patient then swallowed. The incantation linked the food to be dislodged with the passage of the Sun through the underworld at night. Some problems, like bone setting, do not seem to have needed spells, but headaches always did. There is often a stress on what we would call the psychological dimension of illness, and the attempt was made to discover what actions or contacts of the ill person may have caused them to be assailed by demons. People were asked about recent events in their lives and their possible personal impacts. We too are also slowly realizing the importance of the psychological dimensions of diagnosis and treatment.



Figure 3.5. Scarabs and intaglios made into finger rings that were used as protective devices. These are made from various stones placed in gold settings. They date from the Twelfth Dynasty, c. 1820 BCE.

The Egyptians are famous for their obsession with death, to which the pyramid stands as a symbol and the myth of Osiris a partial explanation. The dead were members of society, as active as the living, but more difficult to understand. Indeed, we might see the living state as temporary, with the transfigured soul (*akh*) residing eternally in paradise (*duat*) with Osiris. To achieve this desired state, the newly deceased must navigate various terrors of the underworld, and for this they needed help from the living. A person's vital force, their *ka*, was connected to the body, unlike non-Egyptian views that the soul was somewhat separate. To maintain the *ka*, the body must be preserved through mummification and lodged in a good tomb. Mummification could take months, during which ceremonies were carried out to aid the dead soul. The priest in charge often wore a mask of Anubis, the jackal god of mummification. The earliest maps of any sort we know of are drawn on the floors of tombs to help the dead navigate the underworld. Such maps as are found in *The Book of Two Ways* identify

physical hazards, like mounds, rivers and lakes of fire, together with metaphysical dangers, like demons with knives. The dead have to discover the true names of these demons to gain power over them. The ultimate dread was of a second death after the physical one, which would extinguish the individual forever.

Once the dead were properly buried, it was necessary to continue to make offerings to them, and many houses had small shrines for this purpose. Of course considerable resources were needed for these practices, and the poor were more likely to be buried unummified in a grave in the desert, where dangerous spirits dwelt. If the dead were helped to paradise, such aid staved off the negative effects that the angry soul might wreak upon the living. In a story from the second millennium BCE, the high priest of Amun-Ra confronts a spirit causing trouble in the Theban necropolis. After forcing the ghost to reveal its true name, the high priest finds that it is unhappy because its tomb has fallen into disrepair. An endowment for a new tomb and offerings are promised to settle the spirit. More positively, particularly in later periods when more is known about divination, the dead might answer questions about the future, serving as a powerful aid to planning. The dead concentrated power: the hair of the deceased or an object buried near a grave for a while had considerable potency. Naming death was perilous, given the power of words to effect change in the world, and circumlocutions were necessary when discussing how people died and in naming the dead ([Figure 3.6](#)).

To the outside world, Egypt was the mother of the magicians. The opponents of Jesus accused him of training as a magician in Egypt. Massive efforts were expended on building pyramids, tombs and temples, each with its own painted or written decorations, or libraries of scripts. The temple was the centre of magic and religious activity, with priests experts in these two overlapping practices. Pyramids were focused on the mummified body of the pharaoh (and also their attendants), provided in death with many of the things they enjoyed in life, helping the powerful to live in as full a manner after death as they had before it. The huge size of the pyramids and the effort and skill needed in their construction indicate the central importance of death to the Egyptians, as well as the physical and magical efforts they went to in order to navigate it. Magic was a crucial part of learned Egyptian society, often involving huge erudition. Everyone practised magic, using amulets, spells and special substances. Mummies

and statues commanded attention then and now, but were enmeshed in innumerable links of materials, colours and powers, which stretched through the world and all elements of Egyptian society. The later history of Egyptian magic was also powerful, as we will see in the chapters on Greece and Rome and later European history.

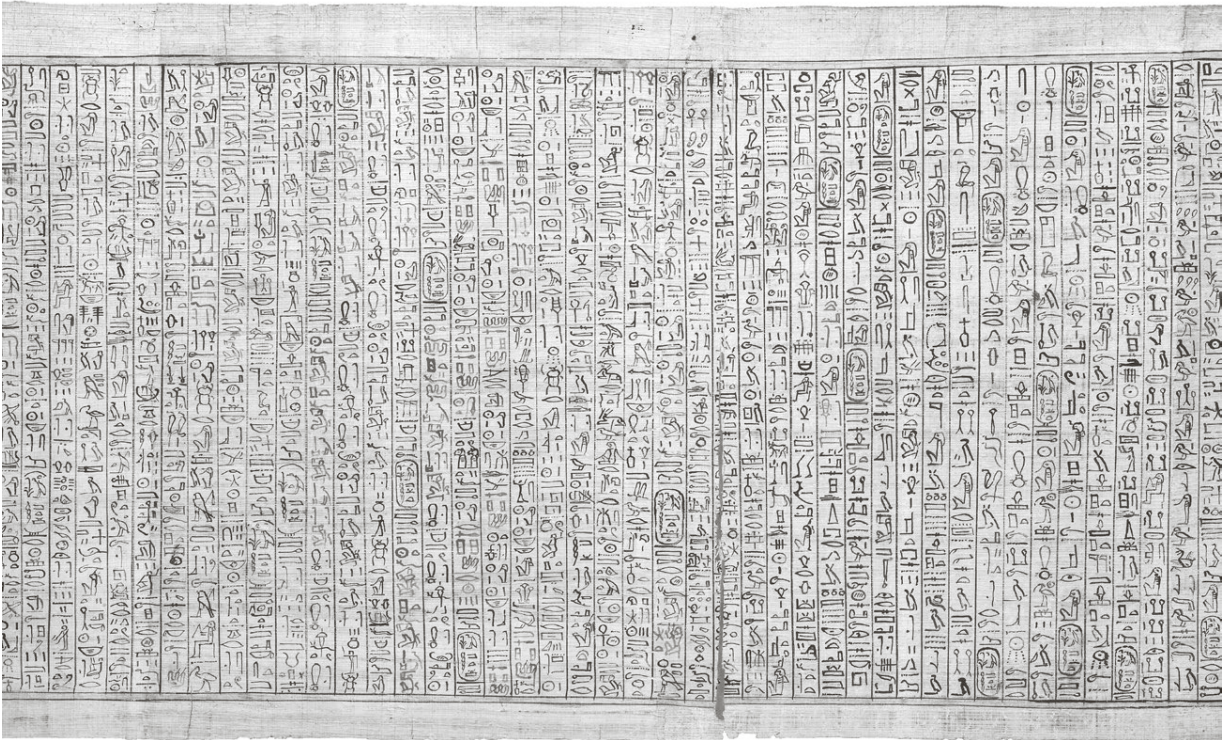


Figure 3.6. This scene comes from Queen Nedjmet's *Book of the Dead*, stolen from the Royal Cache at Deir el-Bahari. Nedjmet and Herihor, her husband (whose burial has never been found), are making offerings to Osiris, Isis and the four sons of Horus, who are also watching a small scene of weighing the heart. The weighing is supervised by Thoth in his form of a baboon, and the conventional heart is replaced by a small female figure that must represent Nedjmet. Herihor features prominently, probably because of his royal status as one of the first of the high priests of Amun, who effectively ruled Upper Egypt from the end of the Twentieth Dynasty (about 1186–1070 BCE) until sometime in the Twenty-second (about 945–715 BCE).

The hidden powers of magic

I once sat next to someone at a meal who was convinced that the pyramids were built by aliens and could be used to generate various types of power, if only we were able to rediscover the means (part of their evidence for this was the image of a pyramid, seemingly emanating power around an eye, on a US dollar bill). At first I thought this was a joke, but then realized the

conversation was serious. When I said that, as a professional archaeologist, I did not believe such claims, my companion said I was part of an academic conspiracy to keep from the world the truth about Ancient Egypt and its power. Our conversation was surprisingly amicable and has stayed with me. Neither of us was able to alter the views of the other. The most interesting aspect of our talk for me was that it provided evidence for a continuing obsession with Egypt and its mystical or magical powers, and that this interest often takes a rather mad form. More particular aspects of Egyptian culture have held attention down the ages, rekindled in the last two centuries since the deciphering of hieroglyphics. *The Book of the Dead* has had a long echo, testimony to more recent uncertainties about death, with Westerners laughing uneasily at Will Self's *North London Book of the Dead*. Later cultures have been fascinated with Mesopotamia but not to the same degree.

Egypt, and indeed Mesopotamia, created a highly aestheticized culture, with a strong and recognizable visual style and monumental architecture that still amazes today, complemented at the time by complex language, performances, music, smells, food and drink. A crucial element of both cultures was the development of hidden knowledge, which only the elite and educated knew in depth and no single individual could ever fully master. Magical powers allow the cognoscenti to tap into the powers of the cosmos. Maybe this hidden aspect is part of the allure today: both cultures offer mysteries to be penetrated and understood with sufficient patience, learning and will. The use of Egyptian symbolism by the Freemasons is well known. Furthermore, knowledge was linked to power, in the sense of worldly hierarchy and influence, but also through the possibility of tapping into the ultimate forces of the universe that could help to deal with illness, possession and death, or with controlling transformations.

Mesopotamia and Egypt are the two oldest urban state cultures in the world. In both magic was central to the operations of the state, and integral to the nature of power, but it also shaped the existential conditions of life for all. Both believed the cosmos was alive and sentient, with people an articulate element of an intelligent whole. Both civilizations developed a great range of specialist functions and specialist practitioners, including magicians, who picked up signs of how the cosmos was unfolding, developed appropriate courses of action, warded off harm and promoted well-being. The *āšipu* and those wielding *heka* were highly trained and

prominent in the political activities of the ruler and state. A crucial aspect of the ruler's claim to power was that they could guarantee fertility, wellness and positive relations with other powers, human or not; and the ruler relied on the magician in these matters, as did the population more broadly in questions of life, health and death. The star lore central to Mesopotamian life was created through thousands of years of systematic observation and record, underpinned by an emerging mathematics. An obsession with the stars created aspects of what we later recognize as science, as well as having a strong astrological dimension.

Unlike earlier, more public and open cultures, magic became a partly hidden knowledge in these new states, and the elite linked their power to the control of magical, religious and scientific knowledge, which has been true of many hierarchical states ever since.



4. Chinese Magic: Deep Participation (c. 20,000 BCE–present)

Fu Hao's Tomb

We would today, I think, find the actual experience of Shang ancestor worship rather a shock. The cries of the animal and human victims, the blood streaming down, the body parts, the decapitated heads, the horrible uncertainties and dangers of the environment, the use of magic and spells, the awe and fear with which the ancestors and other Powers were regarded, the intense concern about lucky and unlucky days – all these ‘realities’ should not be forgotten.

– David N. Keightley, *These Bones Shall Rise Again: Selected Writings on Early China* (2014)

It is likely that the tomb of Fu Hao (‘Lady Hao’ in English) was not among the most richly furnished of the late Shang burials when she died around 1200 BCE. However, its rediscovery in 1976 proved one of the sensations of late-twentieth-century archaeology. Not only was the tomb filled with treasures, as we shall see, but it provided a snapshot of Late Bronze Age elite life in China, which saw extraordinarily sophisticated material production, an emphasis on magical practices and notions of Chinese cosmology. Fu Hao’s Tomb held evidence, in microcosm, of all three strands of the triple helix of magic, religion and science at a formative moment in Chinese culture. In this chapter we will delve back into the deep history of Chinese ritual and magic, starting some 20,000 years ago and

then moving forward through the Bronze Age, the unification of China under the First Emperor and the Han, through to the complex Chinese cultural constructions of the present, exploring the manner in which Chinese culture has always been shot through with magic.

There are around 15,000 burials within the Late Shang (the Shang date between 1600 and 1045 BCE) city of Yinxu in present-day Henan Province. Fu Hao was buried in a pit 5.7 m deep, enclosed by a wooden chamber some 5 m long, 3.5 m wide and 1.3 m high. Whereas all other known royal Shang tombs were robbed in the centuries after burial, Fu Hao's Tomb was by chance intact. Fu Hao's was a relatively minor tomb, hinting at the lost magnificence that the burials of major rulers would have contained. The tomb and its contents provide us with a snapshot of Late Shang royal life and the practices of ancestor worship and divination central to the Shang Bronze Age kingdom. Prior to the burial a wooden chamber was constructed and hung around with silks; Fu Hao's body was placed in the centre of this chamber in a lacquered coffin originally brightly coloured (only traces of the body and the coffin survive). Around the edges of the chamber were placed 196 bronze ritual vessels, including small altars and elaborate containers for food and drink ([Figures 4.1](#) and [4.2](#)). Crucial to the relationship between the living and the dead were bronze vessels of great elaboration and beauty that held food and drink for ritual meals in honour of the dead.

In addition, there were many bronze weapons, bells, knives, four mirrors and four tiger statues. Almost 7,000 cowrie shells came from coastal waters to the south. Five hundred hair pins made of bone indicate the elaborate nature of royal coiffure and appearance; inlaid ivory was also found, together with stone objects and 755 jades, some delicately carved contemporary pieces and others already many hundreds of years old when buried, presumably kept as heirlooms. Beneath the coffin, in a pit, were six dogs sacrificed at Fu Hao's death, and around the edges of the tomb on ledges were sixteen people, presumably servants, killed on the death of their mistress. The bloody business of becoming a royal ancestor dragged many others into the tomb. Over the top of the tomb shaft remained traces of a building, probably an ancestral hall to house ceremonies honouring Fu Hao. Today the hall has been reconstructed to give visitors a sense of the curious echoes there must have been in activities below and above ground.



Figure 4.1. General view of Fu Hao's Tomb, showing the bronze vessels around the edge, human skeletons on ledges and traces of Fu Hao's coffin in the centre.



Figure 4.2. Bronze owl-shaped wine vessel from Fu Hao's Tomb.

Fu Hao and her servants were all set up to feast in the afterlife, with the full range of ritual bronzes. It is likely that they were making offerings to still more distant ancestors, of the even older dead, so that we can think of chains of increasingly older ancestors feasting those who came before them. In the hall above ground, feasts would definitely have been held in no little part to maintain Fu Hao's good will towards the living. The queen was as powerful in death as she had been in life. Life after death was as important to the Shang as life before it; the ancestors guaranteed fertility and well-being for the living but only if they were cared for, fed and given wine to drink. The favour of royal ancestors was important not just to immediate descendants but to the kingdom as a whole.

Fu Hao was a remarkable person in her own right, but she was also the consort of King Wu Ding, one of the great Shang kings, whose reign probably lasted from 1250–1192 BCE. Wu Ding's name has long been known from the writings of Sima Qian, the great Han Period historian, who

died in 86 BCE. But it was not clear for a long time if these early lists of kings recorded real historical individuals or mythical rulers invented to give China a great depth of recorded history. From the middle twentieth century onwards confirmation came through records dating from the Shang Period itself. One of the great archaeological contributions of the twentieth century has been to confirm the existence of the Shang Dynasty and then supply rich details concerning the broader structure of the Shang polity and individuals who lived within it, through the excavation of tombs and settlements.

A crucial role of Shang royalty was to carry out divination. Either the scapula (shoulder blade) of a cow or the flat under-shell of the turtle (known as a plastron) was marked by circular pits bored into the back of the bone or shell. Heat was then applied and cracks propagated through the bone or shell. The working of the back of the shell helped to influence the shape of the cracks on the front. The shapes a crack made threw light on a question (known as a charge) that could be given either a 'yes' or 'no' answer. Crucially for later historians, both the question and its answer were carved, using a metal tool, into the bone in some of the earliest known forms of Chinese script. Dates were also recorded on the bones, and considerable work has been necessary to interpret these chronologies. Diviners asked questions of an everyday sort – would the weather be good for crop planting, would a pregnancy result in a boy – but also about the fortunes of the royal family (whether a particular ancestor was causing the king's toothache) or the outcome of wars and battles. Piecing together evidence from many bones and shells, historians have reconstructed a full list of Shang dynasties and documented their preoccupations, small and large, in great detail.

We know the tomb we have been looking at is Fu Hao's, as over sixty bronzes have her name inscribed on them, including two sacrificial axes, probably used to execute retainers and relatives who accompanied her into the grave. More bronzes are inscribed with her posthumous title, under which she would have received sacrifices from family members after her death. In death Fu Hao became Mu Xin. The process of becoming an ancestor was to slough off the details of character and personality that constituted the living person, taking on a limited and defined role in death. Shang ancestral names were made up partly of one day of the ten-day Shang week. Women were generally linked to less auspicious days at the

end of the week, such as Xin. It was on this day that offerings were made to the ancestor with that name and also questions asked of them about the future.

Fu Hao's Tomb provides a snapshot of her life in death, but we also know of her from oracle bones ([Figure 4.3](#)). There were worries around her pregnancies, but we also discover that she led troops in battle, as predictions were sought on the various outcomes. It appears she was a most successful general, a sign of heavenly favour. Fu Hao was famous in the Late Bronze Age, a fame that has been reignited in the present, partly due to her status as a warrior queen.

The use of bones and turtle shells for divination goes back to the Neolithic, as we will see in more detail later. It is possible, although debated, that signs from the Neolithic site of Jiahu represent both the earliest forms of Chinese characters and their use in divination prior to 6000 BCE; the practice of using bones for divination becomes common by the third millennium BCE, continuing into the Early Bronze Age Erlitou and Erligang phases. In the Shang, divination reaches quite new levels of sophistication, with very similar practices continuing into the Zhou (see [Figure 4.4](#) for a map of the sites and topographical features mentioned in the text). With the Shang we see a rapid transformation and intensification of Chinese society, which created the early roots of modern China. The nature of Shang power is still debated, lying partly in newly productive agriculture and military might, both of which were closely entangled in practices of sacrifice, offerings and divination in which dead ancestors were crucial. This might lead us to see Shang power as separated into practical and magical elements, but in fact these existed symbiotically, so that, for instance, the fertility of the rice fields depended on the ancestors' abilities to channel cosmic energies into the crop and the fields. The Shang inhabited a world of magical powers that attracted much of their attention and social effort.

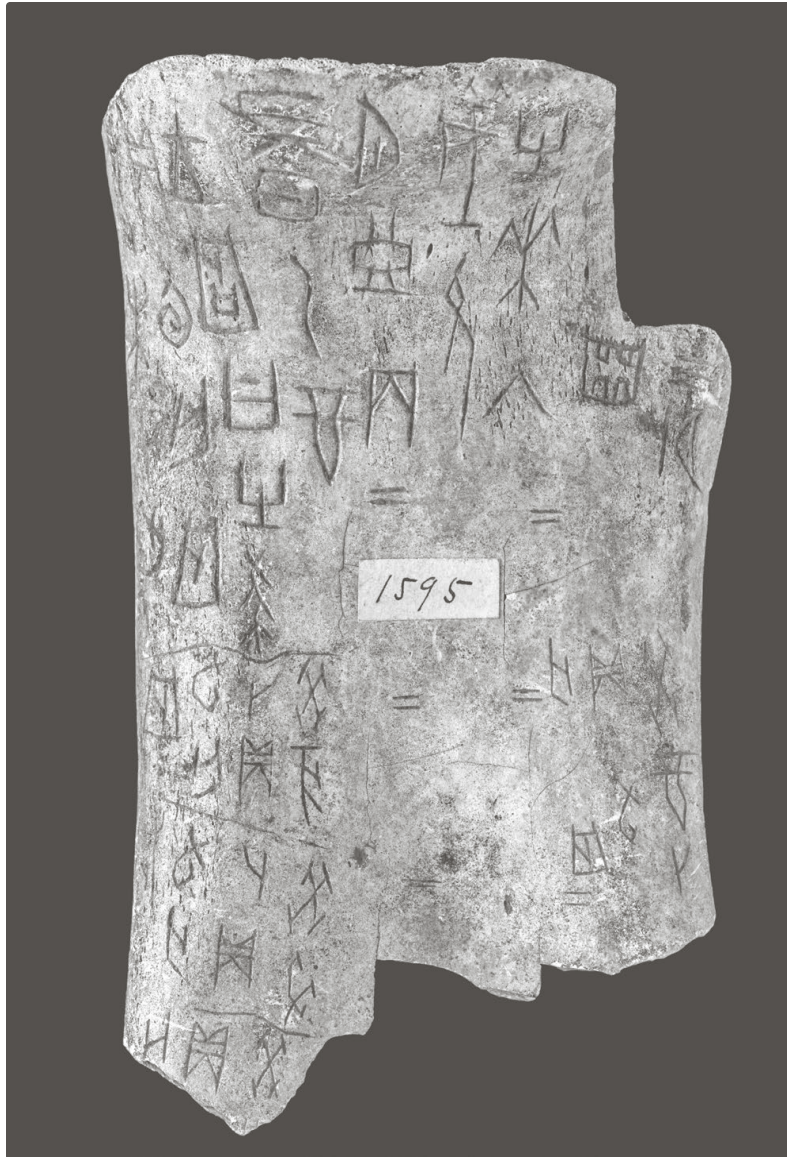


Figure 4.3. Shang Period (1192 BCE) oracle on an ox scapula. The text says that there will be no misfortune in a particular ten-day period.

Setting up the Shang state created a dramatic change from earlier Bronze Age and Neolithic forms of life, but Shang ways of life did not appear totally new and had their own deep rootedness, possibly back to the Late Glacial some 20,000 years ago. We will now explore these early developments, before moving forward again in time to see the Shang in some historical context, and we will then be able to consider Bronze Age legacies through to the present.

The deep history of Chinese magic

China's historical trajectory and relationship to the cosmos stand in marked contrast to the world outside East Asia. China has been described as this-worldly, eschewing transcendent relations to distant gods, to concentrate instead on living well day to day. Connections to human ancestors were crucial to the well-being of the living. The living and the dead inhabited parallel worlds, and contact between these worlds was possible but difficult and dangerous. Portals existed between the world of the living and that of the dead: in the tombs of the dead; in temples, where offerings were made to the deceased; on altars; or in numinous places such as a mountain top. It is possible that, for the Bronze Age Shang, the divine creative force – Di – was seen as the most senior and powerful of all ancestors and not a power totally beyond the human realm.

Through magical practices people appealed to their ancestors: the dead members of a lineage might help the living if correct offerings were made in a spirit of suitable respect. Magic often kept matters within the family, with the prestige of dead members of a group dependent on their ability to further the prosperity and well-being of their living descendants, saving them also from harm. Over time, relationships to the ancestors changed: the Shang and their successors the Zhou sought a close and beneficial connection; but from the Han onwards the living sought to insulate themselves from the dead and their possible ill-effects, although still making offerings to them.

From the Shang Period onwards, Chinese thinkers and actors slowly developed a systematic view of the universe, made up of links and analogies between various aspects of the cosmos, including the human body. Dimensions of the cosmos seen elsewhere as beyond the human realm, such as the influences of astral bodies, were humanized in China; astrology connected people with the planets. Alchemy was also grounded in the human body, chemical manipulations being closely connected to medicine. Han philosophy shows little emphasis on cause and effect, with more importance placed on the correlation between the characters of the Five Elements (which exist as a cycle: Wood-Fire-Metal-Water-Earth); on colours, numbers and directions, etc.; and on the outward appearances of people and other things, underlain by the changing tension between *yin* and *yang* but linked by flows of energy (*qi*). The search for similarity, sympathy

or antipathy between aspects of the world led to a sustained questioning of human ancestors or specific acts, such as diagnosing the state of the world from the movement of a flock of birds.

Whereas Western thought came to focus on cause and effect (such as through Newton's Third Law – every action has an equal and opposite reaction), Chinese thinkers looked for resemblances and correlations between varied types of things, together with an emphasis on energy flows linking the whole cosmos, from planets to people. The manner in which an ox shoulder blade cracked due to heat or the numerical sequences revealed by throwing milfoil stalks in the *Yi jing* (also known in English as the *I Ching*, or *The Book of Changes*, a popular form of prediction today) might be seen as linked to whether the harvest would be good, if the king's consort would give birth to a male heir, or if victory might be expected in a forthcoming battle. Correspondences of number, direction or substance were revealing about broader features of the universe, but were not seen to cause them. Magical practices teased out similarities, regularities or contradictions, and could help to ease an advantageous path through a highly networked universe.

If this sounds mysterious, it's because it is. A journey into Chinese magic is, for outsiders, a voyage into a novel universe, which was huge, strange, structured and logical. Understanding Chinese thought and action requires considerable imaginative effort, but is definitely worthwhile. Chinese thought and its deeply magical basis was rooted in the presumption that people are enmeshed in the world, participating in it for good or evil, rather than emphasizing gods or developing abstract scientific theory that might distance them from their surroundings. For the outsider, China, like its neighbours Japan and Korea, is not easy to understand, as there are barriers of language (even names of people and places can be hard to remember), geography, and, not least, the sheer richness of the archaeological and historical records, both of these last being subject to disagreement and debate.

One of the gifts archaeology has given to the world is the rediscovery of Bronze Age states in many parts of the world, including China. Later writings and records discussed a Bronze Age state known as the Shang, but for a long time it was not clear if this legendary group had any historical reality. Excavations at the site of Anyang (ancient Yinxu) from the 1920s onwards revealed palaces, temples, tombs and areas of craft production

within a huge site, in turn the centre of some larger polity. Both finds and written records recovered in excavation made it clear this was the Shang, dating to c. 1600–1046 BCE ([Table 4.1](#)). The Shang Dynasty has taken a place in early Chinese history, as a heroic but violent group, succeeded by the orderly Zhou (1046–771 BCE), thought to give rise to the true origins of many civilized features of Chinese life, though it is likely that later writers from Confucius onwards have painted an overly rosy picture of the Zhou. The Warring States (475–221 BCE) saw a slow dissolution of older ancestor worship and politics, leading to a new cultural synthesis around Confucianism and Daoism in the succeeding Qin (221–206 BCE) and especially Han periods (206 BCE–220 CE), when China was unified for the first time. The Han synthesis laid the foundation for more recent Chinese culture.

Chinese cultures stressed participation in the world, so it is no surprise that magic was so central to cultural and political life. Chinese magic in turn centred on transactions, a series of bargains sought with the ancestors, so that the dead might aid the living. Through the emphasis on the ancestral dead, the working of *qi* (which animates all things, human and non-human), the influence of celestial bodies or earthly directions on people, in China, people and the world are closely interwoven. Imbalances in the human world, such as those brought about by an autocratic ruler, could occasion disasters in the physical world: a ruler who overstepped the mark might be seen as responsible for a bad flood or an earthquake. The Han likened these connections to stringed musical instruments: the resonances set up by people will cause similar notes to sound on the strings of the natural world. Harmony begets harmony, while imbalance also echoes through the cosmos.

China, it is said, has a longer and more extensive historical record than any other country on Earth. This is because of the length of time covered by its written evidence: over 3,600 years, from the Shang onwards. But the bureaucratic imperative in China was also early and strong, with many areas of life described, enumerated and regulated over the last three millennia. Bureaucracy also extended to magic, leaving rich and varied forms of evidence. Written records are increasingly complemented by archaeological evidence, with much survey and excavation contributing to this developing picture of the past as a result of the speed and scale of development in the present.

Dates	Periods and dynasties	Events and processes
Before c. 10,000 BCE	The Palaeolithic	The first pottery. Roots of ritual systems
c. 10,000– c. 3500 BCE	Early Neolithic	Domestication of rice, etc., the first villages, the first script
3500–2000 BCE	Late Neolithic	Large centres such as Shimao and Liangzhu. Possible origins of divination
2000–1600 BCE	Early Bronze Age – Qijia, Erlitou and Erligang	Small bronze items and then large cast bronzes
1600–1046 BCE	Shang Period	Large settlements, rich tombs, divination. Complex ritual involving bronze vessels. Fu Hao's Tomb
1046–771 BCE	Zhou Period	Zhou seen to be foundational to Chinese civilization
771–221 BCE	Eastern Zhou Period – made up of Spring and Autumn (771–475 BCE) and Warring States (475–221 BCE)	A chaotic but foundational period – many Chinese classics written, origins of Confucianism, Daoism, etc. Five-element Theory and start of <i>I Ching</i>
221–206 BCE	The Qin Empire	Unification of China under the First Emperor – Terracotta Warriors

206 BCE–220 CE	Han	Consolidation and expansion of China, greater formalization and bureaucracy
220–618 CE	Various dynasties and rulers	
618–907 CE	Tang	
907–960 CE	Various dynasties and rulers	
960–1279 CE	Song	
1279–1368 CE	Yuan	Mongol rule in China
1368–1644 CE	Ming	
1644–1911 CE	Qing	
1911–present	Revolutionary and Communist periods	

Table 4.1. Some of the main periods and developments in Chinese history.

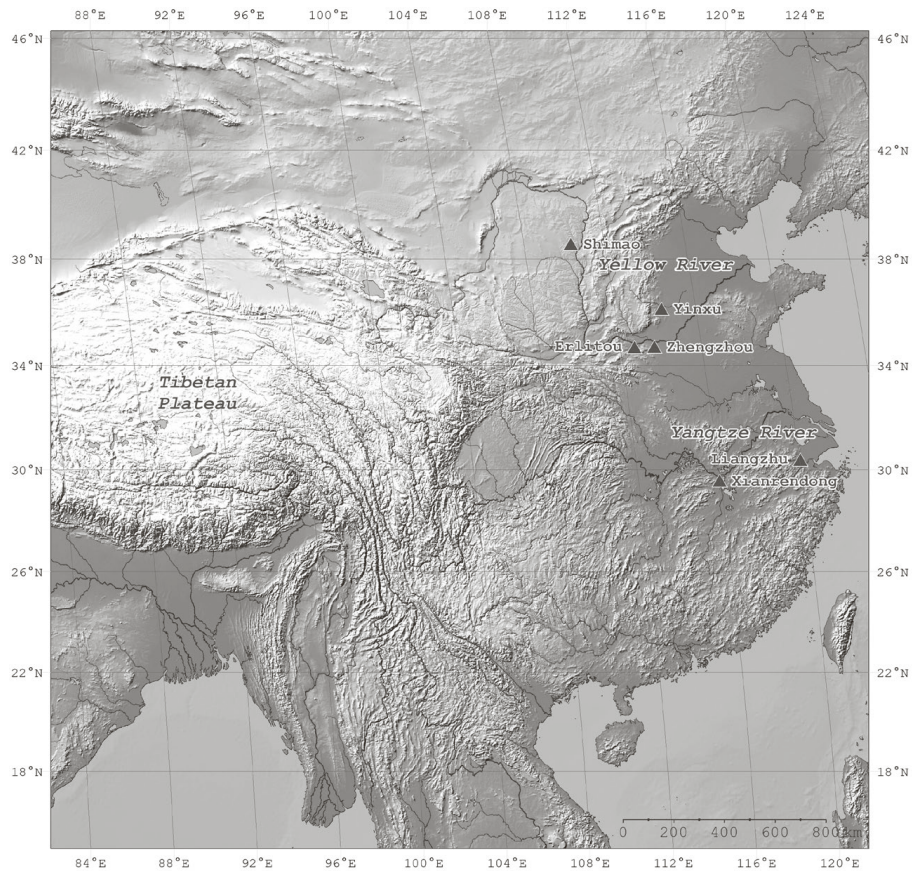


Figure 4.4. The main sites and topographic features mentioned in the text.

Late Glacial rituals

A further startling archaeological find in China of recent years has been the world's oldest pottery, dating to around 20,000 years ago, more than double the age of pots in most other places. In trying to make sense of this discovery, Dorian Fuller and Michael Rowlands¹ have posited the idea of long continuity in the ritual systems of East Asia on the one hand and the Middle East on the other. Fuller and Rowlands' story partly explains how agriculture arose in the East and West, not so much as a superior way to make food but as a mode of ritual. In Xianrendong Cave, in Jiangxi Province, pottery has been excavated and dated to 18,000 BCE, which is at least 10,000 years before agriculture. The earliest pottery in China may have been used for cooking acorns and other nuts, which can require much processing to make edible. In Japan early pots were used for cooking seafood stews, which to us might seem more palatable than acorns. The

Chinese pottery is the first known occurrence of a suite of early types of pottery found across China, Japan and eastern Russia.

Fuller and Rowlands make three points of interest. First, we cannot see agriculture as arising suddenly and through a massive general break from what went before. Rather the history of farming is embedded in the long-term cultures of food and cuisine in various parts of the world. The longevity of boiling as a primary means of cooking in East Asia was one of the factors that led to the domestication of rice around 7000 BCE (after many millennia of use of wild rice), which was then boiled or steamed in the main. For many years in archaeology, around the world, food was about calories; we are now starting to realize that changes in cooking and cuisine were part of cultural forms and forces in which cosmological values were central. Secondly, the boiling cultures of the East contrast with a different culinary tradition in the West, which placed greater emphasis on roasting and baking, so that from South Asia to Europe breads in all their variety became the staples. Thirdly, and this point is most relevant to magic, the ritual systems of East and West differed: boiled and steamed food or drink, which sent vapours up to the ancestors, were crucial to Eastern, and especially Chinese, ritual. The Greeks, as we will see, roasted the meat of sacrificed animals, with the smoke from a roast sheep or cow as a primary means of gaining the attention and favour of the gods.

Obviously, Fuller and Rowlands are generalizing about cultural differences across Eurasia; during the last few millennia influences have flowed west and east, blurring such distinctions. Nevertheless, there is considerable truth to the distinctions they make. Following their argument, we can see that the sorts of ancestral rituals in Fu Hao's Tomb just over 3,000 years ago might have an ultimate origin at the height of the Last Glaciation. If this is true, it extends the continuity of Chinese culture back to periods for which we have no evidence of Chinese language or other cultural markers. We can note in passing that Middle Eastern and European ritual life might have a similar longevity, although a less unified later history. If we follow these ideas, deep in the history of continents and central to their cultural differences are connections to the world of magic or the gods. Such connections shape people's long-term identities, with the result that human history is not purely or mainly about a practical mastery of the world but creating a set of close relationships with magical forces or gods. It is also about the nature of the materials that help people to make

sense of their lives and give shape to their sense of self and group, where the latter may include the dead, the steam rising from the pots to the realms of the ancestors in an effort to gain their favour. Magic is derived from participation, and participation has many dimensions.

Neolithic cosmologies

The history of China is shown through scale and skill. Sites are large, requiring much human labour; artefacts are sophisticated, requiring great human skill (and not a little labour). For later periods, we think of the Terracotta Warriors, the Forbidden City and the Great Wall. Both scale and skill appear from at least the Late Neolithic Period, around 3000 BCE, and much of the evidence is connected with magic.

A number of extraordinary Late Neolithic sites in China have been recently discovered: enormous constructions containing sophisticated artefacts. [Figure 4.4](#) shows the main complexes of later Neolithic sites. I will focus on just two: the site of Shimao, in the north, and Liangzhu, near the mouth of the Yangtze. These sites have been excavated on a considerable scale and well analysed; the findings have caused a considerable recent stir within Chinese archaeology, as they show state-level organization from an early period. Both were polities in which connections with the forces of the cosmos appear crucial to power.

Shimao was constructed in rugged hill country on the loess plateau of northern China (the loess is super-fertile, wind-blown soil deposited many metres thick across Eurasia at the end of the Last Glaciation and is especially thick in north China). An area of 400 hectares was enclosed by two massive stone walls (the inner wall is 4.2 km long, the outer one 5.7 km), with impressive gates and entrances. In the interior is a palace or ritual structure constructed of stone. The predominant tradition in China is to construct enclosing walls out of rammed earth (rammed earth – *hangtu* in Mandarin – is a labour-intensive technique that involves compressing earth and other aggregates by ramming with a long pole), so the use of stone on such a scale is unusual and may be significant.

In the interior of the long stone walls, elaborate jades were hidden, and the practice of hiding jade in this way is unique to this site. The central pyramid-shaped platform is 8 hectares in area on the top. Pits containing skulls have been found and radiocarbon dating of these skulls indicates

dates of use between 2300 and 1800 BCE, right at the end of the Neolithic and the beginning of the use of bronze. Pottery tripods and steamers of Longshan type fit this date well (Longshan is a Late Neolithic culture found in the Yellow River, famous for the delicacy of its pottery) and were used for boiling or steaming millet, perhaps as offerings to the ancestors, a precursor of Bronze Age beliefs. Six pits have been excavated near the East Gate (see [Figure 4.5](#)), two each containing twenty-four skulls and four with sixteen each. At least 112 people died in these episodes; most seem to have been young women, probably representing human sacrifices associated in some way with the construction of the gate; such numbers can now be written in a bland manner, but they hide the fearful and bloody nature of these acts. The deaths at Shimao were part of long earlier and later traditions of human and animal sacrifice connected with construction. People died in numbers a thousand years later when buildings were built at the Shang capital, Yinxu, for instance, not to mention the retainers and relatives who accompanied people like Fu Hao into the grave. Some human bones have cut marks, while others are burnt, suggesting rituals after death.

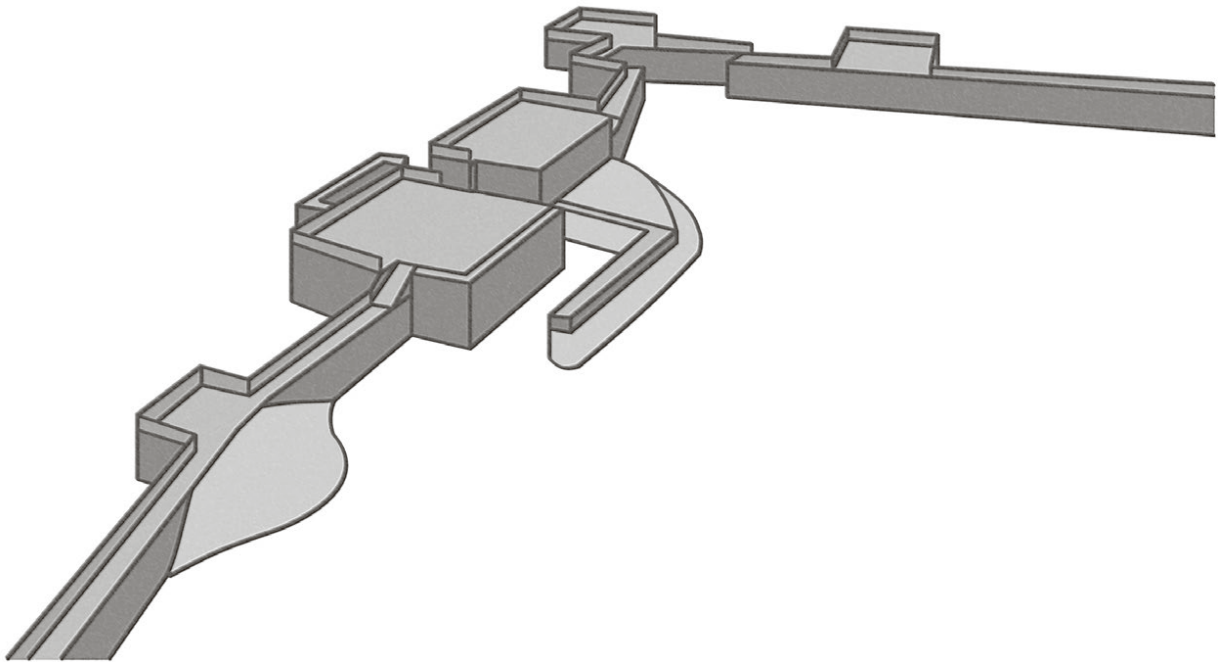


Figure 4.5. The reconstruction of the East Gate at Shimao.

For many years thousands of jades have been looted from Shimao: it was this looting that prompted the local archaeological service to excavate the site in the first place. Within controlled excavations, jades are found in large

burials, in ritual structures, principally an altar some 300 m from the walls of Shimao, and, most surprisingly, within the walls making up the East Gate and in other parts of the complex. Although the archaeological evidence for such use of jades is unique to Shimao, much later texts from the Spring and Autumn Period describe buildings and terraces having jades within them or, indeed, being built of jade. The clustering of skulls and jades around the East Gate makes it possible that human sacrifice, together with the deposits of jades, was part of a spiritual warfare either against spirits or human attackers. Some jade blades were thought of as weapons against spirit foes.

At the end of Shimao's use, around 1800 BCE, early bronzes and copper objects are introduced to the site. Near the central monumental feature, stone moulds for casting were recovered. Also unique are human heads carved in stone, together with some human statues; statuary is extremely rare in Ancient China, and the occurrence at Shimao is unique at such an early period. There are indications that human heads and bodies, together with more geometrical shapes, might have faced out from the walls. The entrance way of the Eastern Gate was painted in geometric patterns in red, yellow, green and black with pigments applied to plaster, a technique previously thought to have been used only much later.

The physical protection of Shimao's stone walls was further strengthened by magical protection through jades and stone heads, because the figures were either powerful ancestors or other spirits in human form. We might speculate that the sacrifices of young women were offerings to the spirits. People were playing with materials and their properties in a very sophisticated manner through the Neolithic, and play with new metals might have been attractive here. We know liquids and wet foods were important in offerings to the ancestors. Shimao had a range of vessels to make such offerings of rice wine and millet. Magic was developed at Shimao to protect its inhabitants, but connections with ancestors, presumably to gain their aid, also took a great range of forms. In general it seems that the solid properties of stone, jade, metal and human bone were most important at Shimao, and this contrasts with the second Late Neolithic site we will look at, Liangzhu.

The Yangtze River Valley has generally been given a back seat in the history of Chinese culture, behind the Yellow River and its tributaries. This is now changing with the recognition of large centres and rich burials towards the mouth of the Yangtze, known as the Liangzhu culture (3400–

2250 BCE). Whereas Shimao emphasized stone, the people of Liangzhu played with the elements of water and earth. Liangzhu sites sit in the Lower Yangtze Basin, west of Shanghai, in the subtropical monsoon region that in the earlier Neolithic was the centre of rice domestication.² Over 200 Liangzhu sites have been recorded, with a high proportion of burials, which often contain jades. The Liangzhu sites occur in clusters, often around a larger centre with public architecture and elaborate burials. I will focus on the most impressive complex currently known, made up of the Mojiaoshan site cluster and the rich burials at Fanshan, surrounded by an extraordinary range of earthworks ([Figure 4.6](#)).

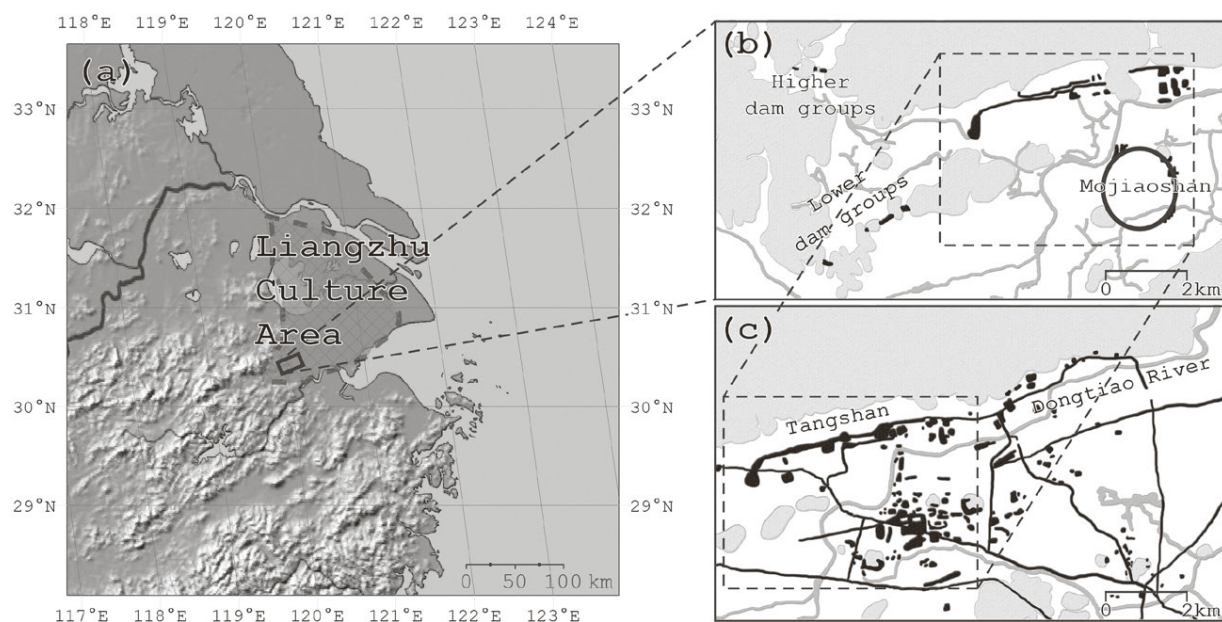


Figure 4.6. The main site at Liangzhu and the surrounding dam-system sites. (a) The position of the Liangzhu group of sites; (b) the Liangzhu site and its surrounding dam groups; (c) the details of the Liangzhu site.

The Mojiaoshan complex was constructed rapidly, with artificial mounds raised up in the swampy river valley (today used for paddy-field rice) and a series of complex dams to the north and west of the main settlement, including the levees at Tangshan that run parallel to the Tianmu Mountains (at least 5 km long, 20–50 m wide and up to 7 m high – these alone were massive constructions), which regulated water coming out of the northern hills. Some of the dams and levees predated the main site, which was constructed on fairly wet ground around 2900 BCE, some 600 years before Shimao.

The centre was surrounded by earthen walls with eight water gates that allowed boats to pass into the city, where natural rivers had been augmented by artificial canals, ditches and moats. Reconstructions of the site show people poling boats along the canals in and out of the centre. In the middle of Mojiaoshan is a large earthen platform more than 30 hectares in area and at least 8 m above the present paddy fields. An imposing wooden building stood on the platform, described by some as a palace, though really its purpose is unknown. A wall around the whole complex, perhaps enclosing some 290 hectares, was discovered only in 2007. It is estimated that at least 3,000 people would have needed to work for eight years to construct the banks and levees on their own, with work probably spread over a much longer time, interspersed with vital agricultural tasks. The main centre required much more labour. Estimates for the population of Mojiaoshan (which, like labour estimates, are always tricky) indicate a possible 30,000 residents at its peak. Large amounts of food were centralized here to feed an enormous and hungry workforce. One storage pit in Mojiaoshan still held 10,000–15,000 kg of rice when excavated, left and preserved by some accident of history.

In the north-west of Mojiaoshan, within the enclosing wall, is a further large artificial mound some 5 m high, into which eleven tombs have been inserted, which together have produced 1,100 jades, mainly in the forms of *yue* axes, *bi* discs and *cong* tubes, together with pottery and other stone artefacts. Human sacrifice is also indicated by less formal modes of burial. Liangzhu jades were known before the sites were excavated, stemming from finds made by local farmers. Stratigraphic excavation has shown conclusively the early date of these artefacts, and a workshop for making jade and stone artefacts has now been discovered on a mound at the north-west of the Mojiaoshan complex and at a number of locations elsewhere. Stone drills of a new type designed for jade-working have also been recovered.

The variety and beauty of Liangzhu jades is famous, with three broad forms of decoration, labelled today as dragon, a composite human with animal, and birds. The animal–human combination has a human head, possibly wearing a feather headdress, below which are human arms and hands, and then in a lower register is some animal creature with large, round eyes and sharp claws. There is a strong emphasis on left–right symmetry in the design, sometimes arranged around the squared edges of

cong tubes. The mixture of human and animal indicates a fluid world, merging the human and non-human, to perhaps create creatures with the attributes and powers of people and animals. Such composites have been seen by some as evidence of shamanism. I am not sure we can be so specific, but this is definitely a world blending the human and non-human. Liangzhu motifs are compelling in their own right, but are also ancestral to the so-called *taotie* mask, a central part of the extensive bestiary of Shang and Zhou bronzes.

Power was at work in Liangzhu. Human power is linked to, and perhaps derived from, other powers of the universe, as the composite animal–human motif indicates. People were not separate from the world, but entangled in a series of forces and constraints they tried to steer and manipulate as best they could. People shaped matter and channelled energy to create sophisticated jade and pottery. The very fabric of the sites shows massive human play with broader forces, with the basic elements of earth and water, the latter especially having productive and destructive powers, as either the basis for intensive rice cultivation or flooding and inundation. From the subsequent Bronze Age come legends of a great flood: it is just possible that a wet episode around 2000 BCE caused widespread change in settlement patterns, a violent reorganization that might have led to the later Bronze Age resettlement in the middle Yellow River area. Late Neolithic people saw themselves as part of the broader universe, and this was not an early manifestation of a benign oneness with the universe but rather an acceptance of the world in both its productive and destructive phases.

In these relatively early complex sites power was cosmological. It is dangerous to look back from what we know of the future in China, but there are indications of some continuity of cosmology, which makes tacking backwards and forwards in time a potentially enlightening process. Much later on, starting in the Warring States (475–221 BCE) but really crystallizing in the so-called ‘Han Synthesis’, Chinese cosmology comes to be based around an infinitely complex set of correlations between the Five Elements, colours, directions and times, animated too by the balancing forces of *yin* and *yang*. Wood, Fire, Metal, Water and Earth comprise the basic elements, linked also to green, red, white, black and yellow respectively, which then correlate with the organs of the human body and directions (liver with east and Wood, heart for south and Fire, lungs for west and Metal, kidneys for north and Water, spleen or stomach for

centre/union and Earth). All these aspects are dynamically related to both the yearly seasonal cycle and the life cycles of human beings: winter, north, Water and birth give way to spring, east, Wood and puberty, maturing into south, Fire and adulthood, and lastly something of a decline into autumn, the west, Metal and old age. There is also a process of renewal here around the relatively unchanging centre and earth, which might also be seen as the *Dao* (or 'Way'). By the Han Period there was a series of annual rituals linked to Daoism that follow this cycle. During this formative period of the Chinese state Daoist mysticism informed the activity of the emperor, as well as providing inspiration for messianic peasant uprisings in the Late Han Period. Both official culture and counter-culture tried to tap into the flowing energies of the universe identified by Daoist thought.

Now, it would be foolish to claim that such a series of connections arose fully formed in the Late Neolithic. However, we can see some precursors of later thought in the way people worked with materials, both on a massive scale and through fine technical skill in shaping jade or bronze. Someone drafted in to work on Shimao would have helped to quarry, shape and set stones into the walls, hide jades and move earth in tremendous amounts. Their equivalent in Liangzhu would have dug ditches and canals, moved earth and planted vegetation. While probably forced into this immensely hard labour, they probably also shared some of the world-view that lay behind this play with substances, so that notions of energy and flow may have emerged in the Neolithic, as manifest in the development of extraordinary skills in making pottery and sculpting jade. Skilled workers fashioned pottery and jade, as well as a mass of wood, textiles and lacquer, all important aspects of the theatre of these sites, demonstrations of the power of the ruler to shape the world in ways that might shift the cosmos. In making these immense sites, people were shaping their own sense of efficacy and what was possible in these particular magical worlds. The inhabitants of Shimao and Liangzhu were working through very material cosmologies that find later echoes in the sophistication of bronze production or the making of Terracotta Warriors. Indeed, as we have seen, the offerings of steamed liquids to the ancestors that became highly developed in Bronze Age rituals may have their ultimate origins in the Palaeolithic.

Having sought the deep histories of Chinese magic in Palaeolithic and Neolithic life, we can return to Bronze Age cosmologies, knowing more

about their past and better able to think about their future.

Bronze Age ancestors

We can now see that the magical world in which Fu Hao lived and died had a long history. For the Shang, death was not extinction and a slow forgetting but rather a change of state, a transfer from the world of the living to the realm of the dead. The Shang, and all subsequent Chinese cultures, lived by primary reference to their dead. Ancestors from within the lineage guaranteed the well-being of the living. The more powerful the lineage, the more puissant the ancestors. The ruling houses of the Shang and Zhou, for around a thousand years, maintained a regular conversation with the dead through two primary means: divination, using oracle bones; and also feasting, in which a very elaborate and often highly decorated set of bronze vessels holding food and drink was central. Chinese cultural life always has another layer and dimension of complexity: for example, the dead in their tombs feasted other ancestors. The ritual set supplied to Fu Hao, as we have seen, enabled her servants to prepare feasts, which she could then lead. Potentially, at least, in other tombs of different ages further conversations, connections and entreaties were maintained, creating a cacophonous set of relations between the dead of various generations. The living also organized feasts, partly to maintain good will, so that when a question was posed to an ancestor through divination they would be moved to ensure a wished-for outcome.

A last piece of history will help us navigate between the collapse of the Late Neolithic mega-sites and the newly sophisticated world of bronze. The Bronze Age polities of Erlitou, Erligang and then the Shang, all centred in the Yellow River Valley, represent dramatic change from much that went before. The major sites are even larger and more impressive than those of the Late Neolithic, with temples, palaces, large-scale craft production and a range of burials from the fabulously rich to the much more modest. Bronze entered this world from the Steppe, itself initially a small addition to the world of artefacts, but from the Shang onwards formed into vessels, bells and weapons (among other things) that still compel and astound by virtue of their complexity of form and decoration, together with their sheer size. The skill, organization and effort lying behind these bronzes indicate their

centrality to elite cultural life, which in turn further demonstrates the power of the ancestors, as well as rituals to intercede with them.

In China, people write their history to stress the continuity of Chinese culture reaching back into the Palaeolithic, and there is certainly truth in this, not least in the forms of some vessels for offering food and drink to the ancestors. Late Neolithic vessels made of clay demonstrate very considerable skill in their construction. But revolutionary change is also evident, for instance, when pots are recast into bronze. In making bronze vessels ([Figure 4.7](#)) new skills were needed, as well as the considerable organization required to mine, trade, smelt, alloy and cast the metal. It is tempting to see really deep continuity here, from the bubbling pots of the Late Glacial 20,000 years ago, through to their Bronze Age descendants some 17,500 years later, but this must be counter-balanced by the production of novelty.

Communicating with the ancestors through feasting and divination was central to Shang dynastic power and life, as it was to people further down the social hierarchy. By the Late Shang (1200–1046 BCE) complex methods had been developed to maintain constant contact with ancestors. This was partly achieved through divination, which was an ancient and widespread practice across East Asia.³ Going by various exotic names – scapulimancy, pyro-osteomancy or pyro-plastronomy – these divinatory practices involved the use of scapulae (shoulder blades), sometimes simply with the meat stripped from them and sometimes burned (the ‘pyro’ element of the above terms). Later turtle plastrons were used too. The earliest firm evidence of divination in these forms is from the north of China, present-day Inner Mongolia, around 3,300 BCE, becoming more common in the later Neolithic Longshan culture. In these early periods, there was little system to divination. Questions were asked of ancestors on the surface of the bone, but the position of the query on the bone varied, and the bone itself was not prepared to help to generate an answer. In the Early Bronze Age (2000–1600 BCE) in the north-east of China, during the so-called Lower Xiajiadian culture, people started preparing the bone by drilling hollows in its back. Cow, sheep, pig and hunted animals such as deer supplied the bones on which questions could be asked. Elsewhere in China, even in the Central Plains, soon to give rise to the Shang, varied practices were common. In the Early Shang we still see little system, but this changes at the site of Zhengzhou, where cattle bones were used in a more standardized manner,

with question and response clearly written; and a bronze drill has been found for drilling bones. We also see the first use of turtle plastrons, which needed to be imported from the south. Turtles take on an important role in Chinese mythology, in which they are seen as strong and stable, in a similar manner to Hindu cosmology, in which the world was seen to be balanced on the back of an elephant standing on a turtle, the latter the ultimate guarantee of stability.

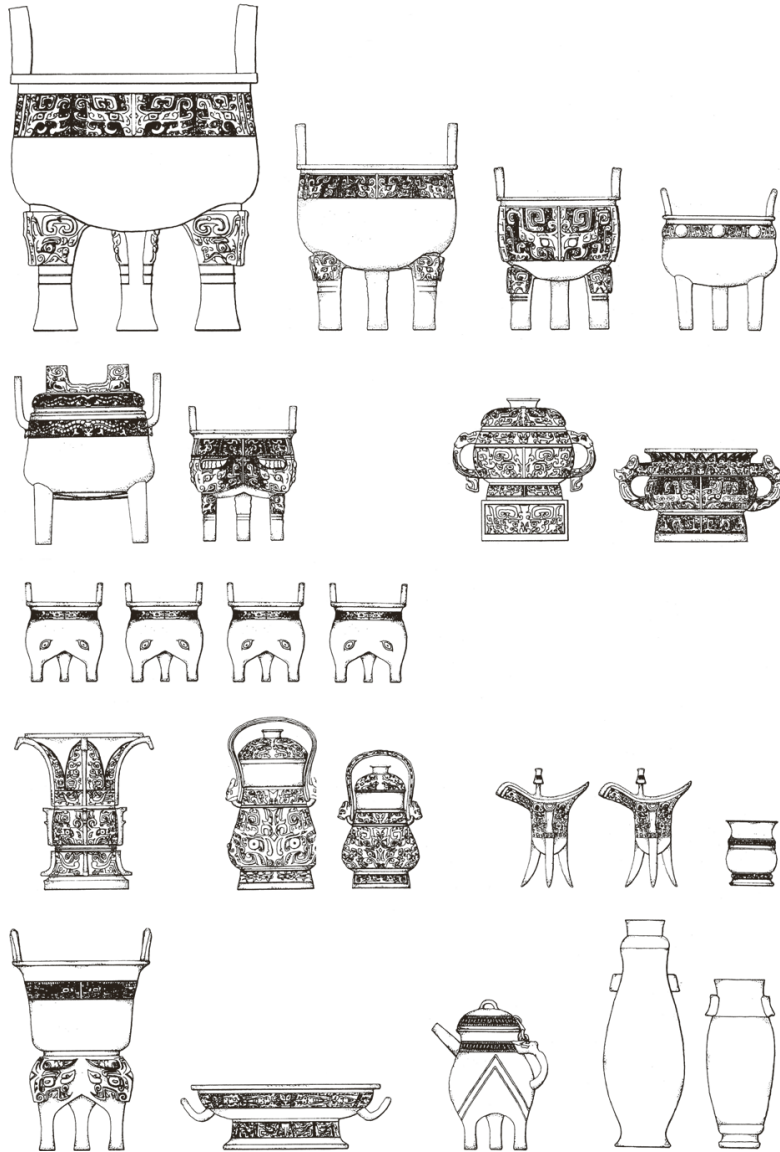


Figure 4.7. Ritual sets of bronze vessels for feasting the ancestors.

Now, after 1200 BCE, the Late Shang system starts to kick in, especially in their capital, Yinxu (translated as the ruins of Yin, Yin being the original name for the capital). The so-called double divination mark, two drilled holes, which constrains and indeed determines the pattern of cracking on the bone, is introduced. The voices of the ancestors could be heard as the bones cracked, crying the sound *bu*. Important questions arise as to whether this was divination, in the sense of trying to foretell the future, or rather an attempt to construct the future through an appeal to ancestral influence.

By the Late Shang, there were probably at least three levels of divination. Most visible to us is that of the royal household, carried out by specialists whose answers were convincing by virtue of their training, knowledge and personal rectitude. The king was present on those occasions, framing the question for the diviner to present to the ancestor or taking advice from the specialists on the nature of the question and the reply. The royal house depended not just on the ancestors but also on the even more powerful and overarching Mandate of Heaven, proffered or withdrawn by the demiurge Di, whose power lay behind so much that happened in the universe. Once the Mandate of Heaven had been withdrawn, it was very hard to win it back. Noble households also had their own lesser specialists, attempting to discern and steer the fortune of the house. Out in the countryside, and also in centres away from Yinxu, was a mass of more informal versions of royal divinations, often using unprepared scapulae without written charges or responses. Everyone attempted to secure a future, which must have set up a host of contradictory claims and aspirations. Not all houses could succeed, with both the living and the dead making mistakes or being overcome by fate, causing blighted crops, dead animals or a flooded valley.

One of the many appealing aspects of magic is the wonder of the words it has generated. Among my favourites is hemerology, referring to the pattern of auspicious and inauspicious days for particular events or actions, preserved in pale and weak form through Western almanacs. Time, seen through the procession of days, months and years, in Ancient China was not a measurable quantity, as it has become more recently, but a series of qualities, with various periods being auspicious for some actions and less good for others. The Shang, Zhou and later groups mapped out past, present and future in immense detail through patterns of good and bad days. People tried to adjust their actions accordingly, following also ancestral advice.

Crack-making on the *jimao* day (#16), Que divined: ‘Will it rain?’ The king prognosticated: ‘If it will rain it will be on a *ren* day.’ On the *renwu* day (#19) it really did rain.⁴

Here we can see something of the complexity of the system of days and numbers, together with the sometimes trivial nature of the questions posed in divination. The Shang combined two systems of terms to record dates. There were ten Heavenly Stems: *jia, yi, bing, ding, wu, ji, geng, xin, ren, gui*, which were used in the names of the kings, but also formed the names of the ten-day Shang week. These were complemented by the twelve Earthly Branches: *zi, chou, yin, mao, chen, si, wu, wei, shen, you, xu, hai*. These are combined in order, starting with *jiazi*, so that every two-character number repeats every sixty days. In the quote above, #19 is the nineteenth day from the beginning of the cycle, starting at *jiazi* (#1), and is hence a *renwu* day. Each day had its own properties, linked with a complex, repeating number cycle. Numbers allowed regularities in the world to be observed, modelled and manipulated, becoming basic to Chinese understandings of the cosmos, as would be found in the later and different system of the *Yi Jing*, which arose during the subsequent Zhou Period.

More important charges were also posed, in this instance by a Shang diviner.

Crack-making on the *guichou* day (#50), Zheng divined: ‘From today to the *dingsi* day (#54), will we harm Zhou?’ The king prognosticated and then said: ‘Down to the *dingsi* day (#54), we will not harm [them]; on the coming *jiazi* day (#1) we will harm [them].’ On the eleventh day, *guihai* (#60), our chariots did not harm [them]; in the *dou* period between that evening and *jiazi* (#1), we really harmed [them].⁵

This charge was posed at a time when the Zhou were a minor power competing with the Shang, whose eventual ascendancy was still many cycles of days into the future. In both these examples we have a diviner (Que and then Zheng) posing the questions and the king interpreting the answers from heavily prepared bones. Each divination forms a little window on to a past moment some 3,000 years ago, when trivial and grander issues are aired and worried about. We do not know the physical

circumstances of the divination, but we can imagine a room in the king's palace, decked out appropriately, with a brazier for heating the bronze rods, scapulae arranged and some tension in the air on the part of the diviner, whose job and life depended on all going well, but also possible nervousness on the part of the king, depending on the importance of the issue at hand. Such divinations continued on a regular basis, maybe daily in many periods, for hundreds of years. Nowhere else in the world, not even Mesopotamia, do we have such a direct and detailed historical record from such a distant period for the affairs of state.

Divination was a major vehicle for the observation of regularity, developing from the particular a systematic model of the universe. I imagine an undulating surface of auspicious and unfavourable days stretching off into the past and the future. Reading the bones also encouraged skills of interpretation, moving from the microcosm of the scapula to the macrocosm of the universe with the help of the ancestors, who were constantly called on. Aspects of what we call science are present in the preparation of bones for divination and in the mathematical modelling of the procession of days; we find elements of religion linking the royal household to the divine creative force, Di; with magic to the fore in the conversations with ancestors and attempts to recognize beneficial future actions from the cracking of the bones and shells. Chinese constructions of the triple helix of science, religion and magic are culturally specific, but are also part of broader human attempts to understand in combination the physical nature of the world, its theological dimension and magical properties.

Feasting the ancestors

Partly in return for the importunate demands of the living, but also because they demanded respect, the ancestors required food and drink in the honorific form of a feast. The Shang ancestors formed part of a complex set of cosmological figures, ranging from Di, a possible ultimate ancestor (who might have been associated with the celestial Northern Pole round which stellar constellations revolve), down to natural spirits or deities, such as Earth, River and Mountain. To each of these, specific sacrifices were due, as well as to more local spirits who animated the Shang landscape. Five different types of sacrifices and feasts were offered to Shang royal

ancestors: *yi*, *ji*, *zai*, *xie* and *yong*. We do not now know the content and form of each of these, but they probably involved the sacrifice of humans and animals, as well as offerings of food and drink, attended by music, dance and other types of performance.

Divination was also needed to ascertain whether particular feasts would go well.

Crack-making on the *bingyin* day (#3), the [king] divined: ‘On the next day *dingmao*, when the king hosts Da Ding [an ancestral king] and performs the *zai* sacrifice, will there be no harm?’⁶

Each ancestor, after receiving the *zai* sacrifice, would then be offered the other types of sacrifice in turn. A year was known to the Shang as a sacrificial cycle: when all the sacrifices were offered to all the ancestors, they would make up one year. There were also occasional, protective sacrifices to a particular ancestor, who might be judged to be causing the king’s toothache or shoulder pains. The Shang state has been described as magico-religious. It was not just the power of the king that rested on regular sacrifice to the ancestors in his lineage; the sacrifices of the royal house guaranteed the well-being of the whole state.

Some of the most famous objects from the Shang Period onward are highly decorated bronzes in defined forms. My friend and China expert Jessica Rawson has used the helpful analogy of a tea set to explain the composition of these ancient assemblages of bronzes. When preparing a formal tea in somewhere like Britain, it is necessary to have a teapot, milk jug, sugar bowl, plates, cups and saucers, all in the best china a household can manage. These items of crockery are as important as the tea, sandwiches and cake on offer, being designed to show respect for, and to impress, one’s guests. The Shang and Zhou dead demanded respect and may occasionally have been impressed by the containers for millet wine, water, and food cooked from millet, rice and meat. Poor households had a lesser version of aristocratic and royal sets, smaller in number and less elaborate in form or decoration, but with the same basic grammar of vessel types, for food and drink.⁷ It was not just food and drink that were mediums of connection with the ancestors, but also the bronze vessels in which they were held.

The formalism of the ancient Chinese world is displayed in the structured nature of the sets. Two food vessel types were basic: the *ding* and *gui*, which were a cooking vessel and basin respectively for millet, rice and other grains. Taller vessels were used to hold wine, or to mix it with spices, such as the *jia* and *hu*. There are over 10,000 bronzes known from the Zhou Period, and, although often very elaborately decorated, they are more standard in shape than those found in any period before or after.

Bronzes also provided canvases for inscriptions, which laid out lineage relations, aspects of family history or recorded events, such as victorious battles, that reflected well on the house. Positive events occurred through the interventions of the ancestors, so the vessels formed a record of their power as well as the successes of the living. We know of sets of bronzes from graves and hoards. In both cases, assemblages were often composed of vessels of varying ages, creating an archive of a family's histories and achievements. Such archives looked to the past, in the sense that the deceased had guaranteed success, but were also future facing, through the attempt to maintain the name and reputation of the lineage down the ages.

Sacrifices, feasts and their material culture changed and evolved over time, perhaps because new forms of efficacy were sought. As Zhou history unfolded, from around 900 BCE, a major reform of sacrifice occurred, best seen through changes in the forms of vessels, their sizes and the slight simplification of their decoration. As Jessica Rawson points out, the greater size of vessels after the reform would have meant new ways in which the human body was engaged through lifting, pouring and movement by servants and aristocrats taking part in such rituals. Both Chinese divination and feasting, although aimed at the immaterial ancestors, were profoundly bodily experiences, as well as complex manipulations of calendars, numbers and cosmological forces.

The Zhou took over from the Shang, and their rule provided a model of orderliness and good governance for subsequent ages, being eulogized by Confucius, among others. Their power slowly declined in scale and scope, with a conventional end given in 771 BCE. With the end of the Zhou the elaboration of ritual vessels placed in tombs declined, and bronze was replaced by pottery. In the subsequent Spring and Autumn Period (771–475 BCE) and the Warring States (475–221 BCE) (together sometimes known as the Eastern Zhou) there was no single governing centre but a series of small rival states. The structure of employment for diviners, medical practitioners

and other specialists changed radically without a central court, and many became itinerant. Movement had an enlivening effect on cosmologies and forms of magic, so that the bone and turtle plastron divination declined in frequency, to be complemented by other systems, the most famous of which is the *Yi jing*.

Here yarrow (or milfoil) stems are thrown to generate numbers that are then linked to hexagrams, which are little diagrams composed of six stacked lines, some unbroken (known as *yang*) and some broken (*yin*). These are further linked to eight trigrams, each made of three broken and unbroken lines, representing elemental aspects of the world (heaven, lake, fire, thunder, wind, water, mountain, earth). *Yi jing* divination started in the Zhou Period, becoming an inspiration for the Five Element theories, connected also to *yin* and *yang*. The ancient method behind *Yi jing* is not understood, but was clearly based around complex number patterns – their links to the forces of change in *yin* and *yang*, as well as their connections to the elements and human comportment or action. In the second century BCE the *Yi jing*'s importance was acknowledged when it became one of the so-called Five Classics, which codified the ferment of learning and debate in the previous centuries, which then gave rise to Confucianism and Daoism, among many other strands of thought.

Han magic

The ferment, both productive and destructive, of the Warring States gave way to the first unification of China, briefly under the Qin, best known for the tomb of the First Emperor with its attendant Terracotta Warriors. The so-called Han synthesis brought together numerology, *yin* and *yang* philosophy, the workings of energy (*qi*), the Five Elements and Daoism, among other things, to help to understand the regularities and changes of the world, as well as human roles in shaping those regularities to develop an understanding of the past, as well as some grasp of the future. Unification of a more lasting kind arrived with the Han, and a fully bureaucratized state took over, codifying most aspects of life, even magic.

The mutual flow of information and energy between the living and the dead continued under the Han and was subject to bureaucratic regulation. Despite all attempts to regulate, there was now a complex and sometimes chaotic magical landscape. Divination with bone and turtle shells slowly

came to an end in the Han, with *Yi jing* divination more popular. The structure of favourable and unfavourable days was refined, connected now also to illness, in that it might be possible to predict the course of a disease based on the day it started. These Han refinements in hemerology fed into almanacs, still extremely popular in China today. Astrology was also used to influence court policy and more everyday aspects of people's lives. Diviner's boards are known that allow the diviner to link the enquirer to various constellations of stars and planets. Understanding shape also played an important part: it was thought that someone's destiny would be apparent from the structure of their face, something also thought true of dogs or horses. Using this mode of thought, physiognomy could also apply to swords, vessels or utensils. When applied to the surface of the Earth, physiognomy became geomancy, an attempt to read the future from the shape of the planet.

Dreams were extremely important for the Han. The persistent appearance of the dead in dreams was evidence that they were stalking the living, and in cases of extreme harassment the body of the deceased might be pulverized or dissolved in acid. Whereas the Shang and the Zhou were positive about their dead, the Han cultivated a more distant relationship, both honouring the dead while being determined to keep them in their place. But the dead could also supply information, and the content of dreams was read by specialists for the benefit of the living, who might also consult a manual. A dream of the Sun could presage an audience with the ruler, for instance. The future was not preordained, but one could understand the trends in events and cosmological forces so as to be ready to act swiftly and appropriately. The cosmos, being active and sentient, sent messages to the living, the most dramatic of which only the emperor could interpret; the appearance of a comet, rain red like blood, or unusual movements of birds or animals were important messages, possibly about affairs of state, that should be understood. Conversely, the power of the ruler could upset the cosmos. If their punishments were too severe, or there was discord in the imperial household, or they allowed bad advisers to influence them, rippling effects were to be expected because the harmony of the cosmos had been disturbed.

Each area of magic had its specialists: people who sacrificed to the dead, the mediums able to talk to spirits, people learned in texts who could see a pattern in omens, or discern the future of the emperor's horse from its face.

Some geographical regions were famous for their magicians. The south-eastern Yue sent spirit intermediaries to the Han court, who could fall into trances or dance ecstatically to summon the dead. When a man called Luan Da, a master of hidden arts from north-east China, was given a seal of office and an estate of 2,000 households by the emperor for his magical expertise, it was said that everyone from his region started waving their arms around, claiming to talk to spirits and the immortals.⁸

As ever, we know the magic of the elite sphere best, but magic was everywhere and believed in by everyone. China during the Han was dotted with regional and local spirits, either of the dead or the immortals who had managed to avoid death. Whereas in other parts of the world such spirits derived from the place, in China many, if not most, had a human origin, even if the person from whom they derived was forgotten. Local experts abounded in geomancy, astrology, physiognomy or alchemy, with knowledge handed down through texts, but also probably by word of mouth.

In the 1,800 years since the end of the Han, magic has developed in China, but often along the lines laid down then. *Yi jing* and almanacs are regularly consulted. People are concerned about flows of energy within the body but also between the human body and the world around the person. Such concerns are popularly understood through Feng Shui, which is linked to the Five Elements, which, as we have seen, connect to the organs of the body (Wood is linked to liver, gall bladder, eyes) and also the planets (Wood connects to Jupiter), and from these to emotions or mental qualities (Wood correlates with anger or kindness but also idealism and curiosity). Contemporary and bestselling authors such as Lillian Too have developed forms of Feng Shui felt to be both effective and pleasing to modern aesthetics, involving among many other things forms of house decoration that have a protective function. Contemporary Feng Shui is practised wherever communities of Chinese descent are found across the world, but it has also seen effective translation into other cultural traditions. Chinese alchemy, like that elsewhere, was concerned with manipulations of metals, especially gold, but focused less on getting rich than on the creation of elixirs to promote health or indeed eternal life. Perfected substances, such as silver and gold, helped the body to attain perfection and avoid death. Ironically, the ingestion of metal-based potions may have reduced the lifespan of a number of people, not least the First Emperor, who was then

buried surrounded by Terracotta Warriors and many other attendants in death. It appears likely that the warriors formed an army to protect the emperor and maybe fight battles in another world; elsewhere in the burial complex are acrobats and dancers, so that ongoing work might show that many elements of the Qin court and state attended the dead emperor.

Chinese astrology started with the Zhou, if not earlier, being formalized in the Han, when more systematic observations of the heavens also commenced. Astrology was linked to the Five-element Theory and to various colours and animals (see [Table 4.2](#)). The life course of an individual and the nature of their character could be understood from knowing the hour, day and year of their birth. An individual’s character derived from connections to the constellation of planets and stars, and from the connections a dominant planet had to an element, as well as from particular colours and animals. The twelve-year zodiac was formalized in the Han, and in this each year was linked to an animal; the zodiac threw further light on what a person might become, both through worldly achievement and more existentially. A person was a node in a dense skein of connections through the Earth to the skies, which gave them certain predispositions and tendencies.

Planet	Element	Colour and animal
Venus	Metal	White Tiger
Jupiter	Wood	Azure Dragon
Mercury	Water	Black Tortoise
Mars	Fire	Vermilion Bird/Phoenix
Saturn	Earth	Yellow Dragon

Table 4.2. Simplified Chinese astrological connections between planets, elements, colours and animals.

The Chinese cosmos was, and remains, multi-factorial, grounded in links between the human body, the nature of the Earth below and the sky above. The sky was not a realm beyond but very much within the Earth and part of its energies. In the ancient Middle East and Europe, the study of astrology was of forces beyond the human, in which the astral bodies influenced

people in ways they could not resist. By contrast, in China the planets existed in mutual influence with elements on the Earth, colours and animals (real and imagined). Energies flowed backwards and forwards between all these aspects of the cosmos without any sense of overall causal priority to any one aspect.

In brief, the following tale is emerging, but will be subject as ever to testing against future evidence. There is some possibility of ritual continuity between the Late Palaeolithic and historically documented societies, although we are at a loss to explain what this might really mean. But also much changes in the deep Chinese past. As in many parts of the world, farming develops slowly in the Early Neolithic, as crops like rice are domesticated over millennia from their wild forms. Large Neolithic settlements emerge, with some elements found in later societies, and important to our story are indications of early divination. The Late Neolithic centres, just mentioned, indicate new sensibilities and cultural forms, which are profoundly material, based partly around the mass manipulation of earth and water, and these elemental interests are extended to the production of fine jades, beads and incredibly delicate pottery, some of which is used to offer food and drink to the ancestors. The large Late Neolithic centres collapse, for reasons poorly understood. At the same time as the collapse of the old Neolithic centres and the start of the Bronze Age states, bronze technology enters China from the Steppe. At first bronze items are a minor addition to the range of personal possessions and ornaments, being made into knives, earrings or little bells. These are found only in areas outside the Central Plains, where jade was crucial. From the start of the Shang this changes dramatically, with the pottery vessels that contained offerings to the ancestors now cast in bronze. Bronzes quickly become large and incredibly ornate, seeing a sophistication of casting that occurred nowhere else in the world at this time. The decorations on bronze vessels evoke and make present animals and birds of various kinds, each with its own powers and characteristics; the rice wine and food contained in the vessels are offered up to the ancestors, and it is likely that the process of producing what were the world's most sophisticated bronzes was in itself seen as requiring powers beyond the human. Each bronze vessel embodied a complex system of magic, being both the product of magical powers and the conduit for magical activity.

The Shang and succeeding Early Zhou are ritual polities that developed a sophisticated understanding of the universe based around ancestral and broader cosmic powers. Through the Warring States, the philosophy and culture of the Bronze Age world dissolves (although bronzes themselves become baroque in their complexity of form and decoration). A new approach to the universe emerges through the philosophies of Confucianism and Daoism, which take real shape in the Han. The origins of Daoism are connected to the figure of the *wu*, a term often translated as ‘shaman’, but might be more properly thought of as ‘diviner’. At the heart of Daoism is the concept of inaction, which is seen as positive, deriving from an alignment of the body with the energies of the universe and an ordering of the mind through meditation and calmness. Important alchemical traditions grew up with Daoism, which involved taking combinations of mercury (associated with *yin*) and cinnabar (linked with *yang*) to increase human lifespans or allow for immortality. Daoism had a more esoteric, philosophical dimension, but also gave rise to many popular forms of magic, concerned with divination, alchemy and the promotion of harmony; rarely antagonistic to Confucianism, it also shared a close relationship with Buddhism. Central to Daoism (and indeed many other strands of thought) is the idea of *qi*, or energy, which might derive from the counter-workings of *yin* and *yang*. Important philosophies centred on understanding *yin* and *yang* were current in the Warring States Period. Daoism and Confucianism themselves had a *yin* and *yang* quality, the former associated with naturalness and allowing flow, the latter with a formalism associated with correct repeated behaviour and ritual.

In the Han, attempts were made to systematically understand the universe; the ancestors were still important but complemented by observations of the qualities of materials (earth, air, fire, water and wood), the power of *qi*, and the tension between *yin* and *yang* that keeps the universe in motion. These are worlds of great sophistication and complexity, at the heart of which is a series of beliefs stressing human participation in the world.

Imagine no religion

It is not strictly true to say that Ancient China had no religion, but the emphasis of Chinese life was always on this world and the powers within it.

Crucially, these powers included the human dead, and supplication to the ancestors was central to the well-being of the living. A stress on family and lineage is still present today. Chinese cosmologies were closer to a double than triple helix, with magic and science taking up most cultural and intellectual space. This is true to some degree even after the incursion of the important external religions of Buddhism, Islam and Christianity, which started in the third century BCE and unfolded over the next millennium.

Transformation and transaction stood at the heart of Chinese magic and life. China does not divide but instead sees continuities, tensions or stacked similarities (of substance, colour, direction, etc.). One aspect of life could transform into another, so that purified chemical compounds helped in turn to bring purity to the body, creating immortality if truly successful. Science, which in the Western world was developed to investigate nature, did not take the same form in China, despite vast inventiveness and astoundingly skilled play with materials of all sorts. Science stands back from the world, which an older Chinese culture refused to do, because it felt deeply involved. Science developed abstract quantities, such as an undifferentiated form of time in which each minute is the same as every other in terms of duration. Time came to be represented in equations by t for the physicist to aid mathematical manipulation. For Chinese culture, time was a series of qualities, pertaining to favourable or unfavourable moments for action. Mathematics was well developed but helped to map the shapes of time, the topology of good and bad.

Chinese culture saw an obsession with the dead that reached Egyptian levels but took very different forms. Some possible connections may have existed from the Late Glacial to the Han, with bubbling vessels sending their steam to the realms of the ancestors. Through the ancestors parenthood is made immortal, but it is also abstract, to be connected with through magic and ritual. The dead were not removed from the world of the living but existed in a dimension closely connected to everyday life. Chinese cultural worlds changed profoundly with the end of the Zhou, but, even so, there were continuities in the similarities and correlations within the universe between the Bronze Age and the Han, and it was during the latter period that more recent Chinese thought took discernible shape. Here the dead were distanced and more obviously dangerous, but a lot of effort by the living still went into praising, placating and containing them.

Important elements of Chinese magic resonate today in many parts of the world, where people can be found casting the *Yi jing*, worrying about Feng Shui or the flows of *qi* through their body and the cosmos. Many of these practices are shorn of their original Chinese cultural context. In China itself novelty is exploding, as mass-consumerism and social media sweep through this huge population, while drawing on ancient roots. Fu Hao is now the main character in a popular video game, a modern means of giving life after death.



5. Shamanism and Magic on the Eurasian Steppe (c. 4000 BCE–present)

The shaman – a reconstruction

It began with the beat of the drum, slow at first and then fluctuating in speed as the journey unfolded, the drum rising and falling in the air as the shaman's hand moved, shaping the tale. The clan was tightly packed into the shaman's *chum* (the Evenk word for 'tent'). The journey had been long and so was its telling. Shamanic journeys were dangerous adventures of the soul, always in response to some serious need felt by the group, which might be the unexplained death of reindeer, the depredations of new settlers looking for land or the threat to mine on tribal land. All such issues were spiritual, deriving from the relationship between the clan and the spirits of the land, animals or the human dead. The spirits looked after people, so that problems in the human world meant either the spirits were failing in their duty or that people had not offered them due respect. The imbalance or wrong-doing causing the problem had to be discovered and corrected. Only the shaman could commune with spirits and have some chance of coming back unscathed.

The story was long and the elements of the performance were long prepared. The skin of the drum was taken from a consecrated deer (or reindeer), its wooden frame hewn from a living tree, removed in such a way so as not to kill it. The chips of wood left over from the making of the frame were carefully deposited in a swamp or river. Depending on the group, the tree might have grown on a sacred mountain, a descendant of the World Tree, joining the three worlds: that of the sky, in which its leaves and

branches swayed; the middle realm of human everyday life, represented by the trunk; and the underworld, penetrated by its roots, where everything was reversed and living things were dead. Across the middle of the circular frame of the drum was a slat, carved into the shape of a small person. This was the master of the drum. The shaman's hand, when holding the slat, connected to the power of the drum and the energies it generated. In the telling of the tale, the drum became the reindeer steed, which had carried the shaman on their journey, the rhythm of the drum evoking the hoof beats of the beast. Some drums had bells, strips of skin or hair, adding to their sound and animal associations. The drum had a lifetime, much the same as a reindeer's (some fifteen years or so), and once the drum died it needed a new skin, offered up by a reindeer that had been ritually sacrificed.

The shaman's clothing transformed them. A cloak was made from the whole skin of a single animal, such as a deer or a bear. The latter was the most powerful of all animals, having the ability to speak and containing the soul of a human. In being initiated years before, the shaman's human soul had been destroyed and put back together, like the bones in a skeleton being assembled into a new arrangement. There was then a hidden animal soul, deep within the human. Person and animal joined. The robe could sometimes be cut in the shape of a bird, with feathers and a tail. Headdress, gloves and shoes evoked other animals: the shaman might wear antlers on their head, have gloves made from the paws of a bear and feathered shoes. Little metal images of birds and animals hung from the robe, tinkling as the shaman stamped and chanted. Male shaman's robes were occasionally made to resemble female clothing, muting and combining male and female identities. In getting dressed a shaman lost themselves, merging into many animals, plants and aspects of people, fusing their various behaviours and powers ([Figure 5.1](#)).

On recounting such a spirit journey, a pole or tree might be brought into the *chum* to indicate ascent to the overworld, or maybe the smoke drifting up through the tent helped thoughts of upward movement. Journeys were vertical, either up or down. But also made on the great rivers of Siberia, such as the Yenisei, on which indigenous people still live, flowing broadly from south to north, providing important cardinal directions for the shaman. A quest could take them north or south, as well as having an ascending or descending quality. The geography of south and north contained varied spiritual figures known to the group, who might have the power to release

migrating birds from the south, or lurk in the icy waters at the mouth of the Yenisei way to the north, waiting to drag humans, birds and animals down into the depths. Depending on the group, dolls and effigies of animal spirits were placed around the tent for extra aid. In any case, in such a ceremony, the spirits of the land and of the human dead drew near. The crucial characteristic of a shaman is that their soul (or one of their souls) can leave their body and journey out of this world of humans, either into the sky world or the lower world underground. Shamanic practice is psychically dangerous, with the risk of insanity or death, and indeed the power needed to be a shaman can drain the life-force from their near family. On the death of a shaman, their drum and robes were hung in a tree far from human habitation, recalling the way the bones of important animals were put in trees to aid their return to a living body. (Today shamanic practices are regenerating from a low base after a concerted attempt by the Russian state early in the twentieth century to eradicate shamanic beliefs and their influence on indigenous groups. A visit to the museum in Krasnoyarsk in eastern Siberia includes a room full of varied shaman's costumes, collected over a century ago and placed now on model human figures, looking like some sort of graveyard of shamanism.)



Figure 5.1. Earliest known depiction of a Siberian shaman, by Dutch explorer Nicolaes Witsen, who journeyed among the Samoyed and Tungus people in 1692. He entitled this *Priest of the Devil* and gave the shaman clawed feet to match this description.

My account here is not of a single happening or even a group. It is a generalization taken from combined Russian accounts of people such as the Ket (numbering now less than a thousand along the middle Yenisei) or the Evenk, a Tungus-speaking group thinly spread over a vast area from the east bank of the Yenisei to the Amur River in the furthest east. The Ket had three elements of belief, centred first on an individual clan and the spirits protective of the household; then those to do with broader tribal lands and tribal well-being; and lastly beliefs concerning the shaman and heroic shamanic acts.¹ The term ‘shaman’ comes from the Evenk language, itself a branch of the Tungus-language group. They place stress on the last syllable – *shamán*.

The figure of the shaman has been a prominent and dangerous one for the history of magic, somewhat appropriately for a trickster figure able to move between worlds. Shamans are historical figures, responding to the issues of their time, although they and their practices are shot through with more ancient belief systems. And it is here that a more interesting story is emerging. We can now see that there were many layers of belief systems

earlier than shamanism. Shamanic practice probably came together in the last 2,000 years, with some features arising over the last few centuries as a resistance to Russian colonialism.

As we will see in this chapter, history on the Steppe is structured through magic; magic on the Steppe is shaped through history. The Steppe is formed of a band of ecologies – grassland in the south, forest and then tundra to the north – that stretch from eastern Siberia to Europe. We will concentrate here on the grassland Steppe, for which new long-term histories are emerging. We shall be looking at a huge belt of grassland from Hungary to eastern Siberia (see [Figure 5.2](#) for a map with topographic features and sites). Much of the area we consider falls within present-day Russia, but also within the so-called ‘Stans’ to the south and Mongolia. There are three great Siberian rivers flowing north: the Ob in western Siberia, the Yenisei in central Siberia and the Lena to the east. Complex mountain chains fall within southern Siberia, Mongolia and eastern Kazakhstan, such as the Altai, the Pamirs and the Tien Shan, with the Iranian Plateau further west, and then the Caucasus on the far side of the Caspian Sea, dividing Russia from the Middle East. North of the mountains are often deserts, such as the Karakum and Kyzylkum (the black and red deserts) within Uzbekistan and Turkmenistan. Within these huge and challenging environments much new archaeological evidence is emerging, providing us with a picture of the past back to early farming communities that would have been impossible to write even a few years ago. Magic is an integral part of this new understanding of the past.

In the Late Bronze Age, around 3,500 years ago, mobile horse-borne societies emerged, able to travel over long distances, organizing themselves in the huge open spaces of the Steppe. The eventual and best-known descendants of such groups were the Mongols. Unlike settled people, who are more tied to relatively small areas of land, horse pastoralists need to organize themselves in large spaces, knowing which areas are best for wintering large herds of horses and their human companions, then expanding out into spring and summer pastures to contract down into areas of prepared fodder and good shelter in the autumn. Such complex organization took place through ritual and magical means. At the same time as large numbers of horses are first found, around 1500 BCE, we also see the growth of new monuments, initially in Mongolia, where they are called

khirigsuurs, but then in eastern Siberia, in which people and horses were buried together with other offerings. Such monuments were constructed by a large group, bringing many people together. The largest monuments contain up to 1,000 horses, which were not slaughtered all at once, but as people returned to these monuments over many years, presumably to practise ceremonies, feast and engage in various social exchanges. People mapped their worlds through monuments, which formed visible and fixed points on the huge grassy plains, but also stayed in the memory of the group because of the important events of life and death that took place there.

As time went by, the khirigsuurs transformed into burial mounds, which contained people, but also, again, horses and other animals. After 800 BCE a most extraordinary thing happened. Eurasia connected up, with related art forms found across this huge region, buried in mounds that are strikingly similar in construction from Siberia to Western Europe. In the East these types of art and burial are connected to groups we now know as the Scythians. The Scythians were not a single people or culture, but a variety of mostly mobile groups, with some more settled farmers in between. The Scythians connect in the West to the groups we now sometimes call the Celts, who were much more settled but developed an art style strikingly similar to so-called Scythian art, found also with burials of the dead under large mounds. The style breaks the boundaries between species, mixing and merging tigers, deer, horses or fantastical griffins with people. Scythian art is animate in the sense that when we look at it the eye moves restlessly over a surface trying to make sense of the intricate intertwining of body and form. But art is a misleading term, in that Scythian art is not an attempt to represent the world so that it can be contemplated, as might happen today in an art gallery; rather, gold or bronze artefacts, forms of clothing or horse gear, were a series of experiments with reality, attempts to understand and to change it. Art alters perceptions and actions, allowing people to act in the world in new ways.

Like flicking a switch to connect an electric circuit, after 800 BCE energies now flow back and forth across the Steppe between peoples of many different types, farmers as well as horse pastoralists. A huge part of the Earth's surface connects up, so that people, ideas and materials move over long distances, and long-distance links are at least as important as local identities. Magic was central to the ensuing connections and to differences, as we will see through tracing the history of monuments of burial and of

compelling art styles. Late prehistoric Europe can now be viewed as echoing some of the art and magic of the Steppe, as well as having its own local traditions of magic. China throughout its history has had a porous, shifting but important boundary with the Steppe, with a considerable flow of ideas, people and objects from the Steppe into China. All three areas, China, Europe and the Steppe, lacked an emphasis on transcendence, the world beyond, before the coming of world religions relatively late in their history. Whereas China emphasized transactions with ancestors, Steppe people focused on transformation, and Europe combined transaction and transformation.

At the very end of the first millennium BCE quite new types of state organization emerged among mobile peoples, so that in succession the Xiongnu, the Uighurs, the Turks and then the Mongols spread out, to conquer large tracts of land, creating ever larger empires ([Table 5.1](#)). Mongolia is the heart of this later circulation system, its rich grasslands and connections with China allowing accumulations of people, horses and wealth, pumping them out across the Steppe.

Given the new histories sketched above, we can now see shamans as relatively recent magical figures, albeit some of their practices may draw on deep historical roots. Most Siberian shamans known from the last few centuries lived and practised in relatively small groups, often suffering deeply from the effects of Russian colonialism. Such situations are very different from those when large numbers of horse people dominated the Steppe, as happened for around 3,000 years, from 1500 BCE to the end of Mongol domination around 1500 CE. More recent shamanism, which will be discussed at the end of the chapter, is part of practices of resistance, journeying into spirit worlds to attempt to right the wrongs occurring in the dimension in which people live. Having insisted on the recent development of shamanism, it is also right to acknowledge that the deep philosophical interest in transformation goes back at least to the Bronze Age on the Steppe, evidenced through bronze and other media.

Weird, unpredictable, creative and dangerous individualism was condensed into the person of the shaman. The shaman has exerted an attraction on the recent popular imagination, due to the allure of the charismatic magician, able to enter spirit worlds and wrestle with their inhabitants at considerable risk to themselves but to the potential benefit of their group. Shamans break the rules, partly because of their own unusual

characters but also because of the strength and unpredictability of the forces they encounter. The anarchic magic of the shaman is in stark contrast to the formality of the actions of the priest and the conventional nature of his demeanour, obeying the rules and statutes of the rite, following the letter of the lore while losing its spirit. The contemporary longing for a sense of oneness with the world finds expression in courses on shamanism, apps concerning spirit guides to be downloaded and introductions to your shamanic journey.

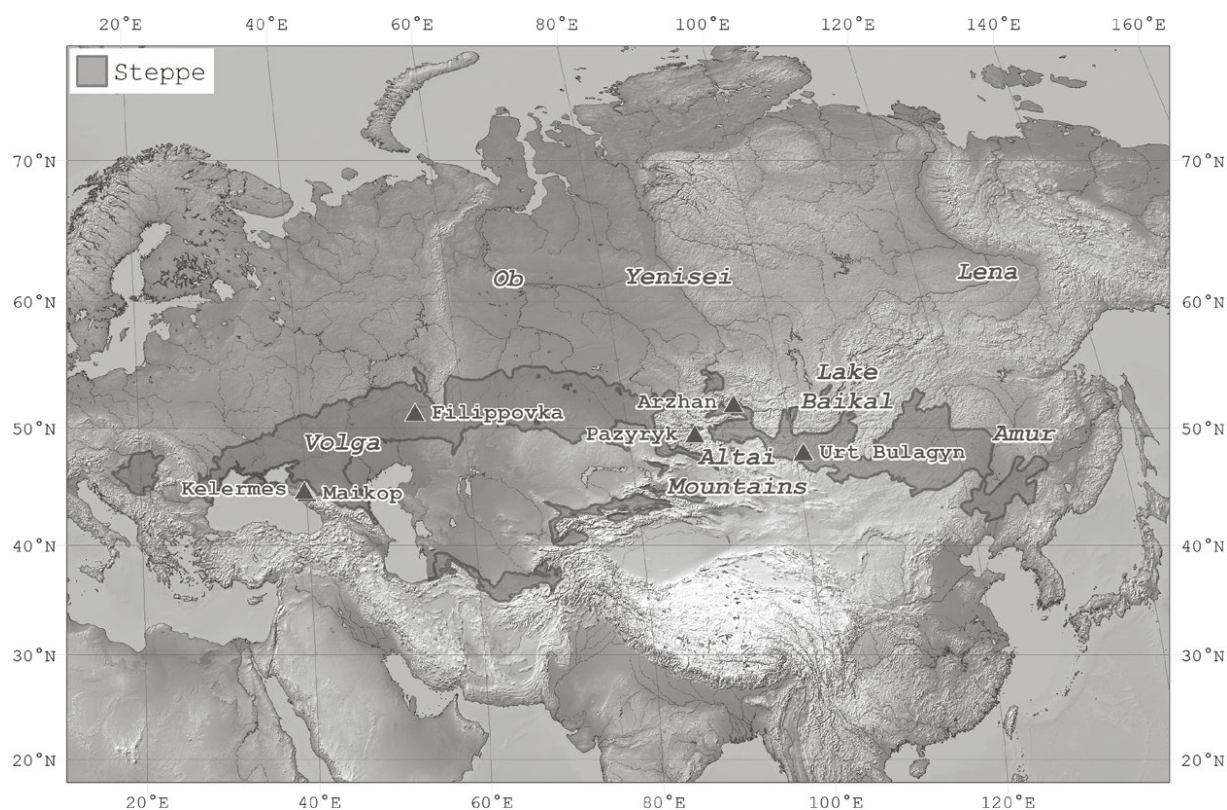


Figure 5.2. Map of the Steppe with the central grassland shaded and the main sites mentioned in the text.

The prehistory of magic on the Steppe

In an archaeology of magic, we will peel back the layers of cultures found on the Steppe over 6,000 years as people spread across it, forming connections between distant areas. The following account is divided into a series of phases, which are not well-defined historical periods but devices for organizing the evidence we have.

Phase 1 – the Steppe fills up and connects

There have been ancient populations in the eastern Steppe since the Palaeolithic. Our story starts around 3500 BCE, when people moved across the Steppe from west to east ([Figure 5.2](#)), but possibly also with population input from the growing Neolithic groups in China to the south ([Table 5.1](#)). This created a fuller and more connected human landscape in which animism is crucial.

Dates	Western Siberia	Southern Siberia	Mongolia	China
3600 BCE	Maikop 3.6–3.1 BCE First horses			Early Neolithic
3300 BCE	Yamnaya 3.3–2.2 BCE	Afanasievo 3.3–2.5 BCE	Afanasievo (little evidence) 3.3–2.5 BCE	Late Neolithic Shimao and Liangzhu
2500 BCE	Seima- Turbino 2.2–1.7 BCE (north)	Okunev 2.5–2.0 BCE First horses	Khemcek 2.6–1.8 BCE First statues and graves	Late Neolithic Shimao and Liangzhu
2000 BCE	Sintashta 2.1–1.8 BCE	Andronovo 2.0–900 BCE includes Karasuk 1.5–900 BCE		Early Bronze Age – Qijia, Erlitou and Erligang
1500 BCE	Srubnaya 1.8–1.2 BCE	Karasuk 1.5–900 BCE	Khirigsuurs and deer stones 1.5–1.0 BCE First horses 1.4 BCE	Shang 1600–1046 BCE
Dates	Western	Southern	Mongolia	China

	Siberia	Siberia		
1000 BCE	Final Bronze Age 1.2–800 BCE	Karasuk 1.5–900 BCE Tagar 900– 200 BCE – First kurgans	Slab graves 1.0–400 BCE	Zhou 1046–771 BCE Eastern Zhou 771– 221 BCE
500 BCE	Scythians from 800 BCE	Tagar 900– 200 BCE – First kurgans Scythians from 800 BCE Tashtyk 200 BCE– 300 CE	Slab graves 1.0–400 BCE Xiongnu First state 100 BCE– 200 CE	Eastern Zhou 771– 221 BCE Qin 221–206 BCE Han 206 BCE– 220 CE
0 BCE		Tashtyk 200 BCE–300 CE	Xiongnu First state 100 BCE– 200 CE	Han 206 BCE–220 CE
500 CE		Uighur Turk state 600– 900 CE	Uighur Turk state 600– 900 CE	Various dynasties 220–618 CE Tang 618–907 CE
1000 CE	Mongol Empire 1160s–1368	Mongol Empire 1160s–1368	Mongol Empire 1160s–1368	Song 960– 1279 CE Mongol rule 1279–1368 CE

Table 5.1. Some of the major cultures, dates and developments on the Steppe. Note that some dates of cultures overlap because they are found across regions, but also because of uncertainties in the dates. See [Table 5.2](#) for some thoughts on the history of magic.

c. 1500 CE to present – incursions by Russians across the Steppe and continuing influence of China

We can think of the Steppe as a history of animism, which is not just one thing but many, as people explore relations with landscape, plants and animals in changing ways. Animism is a useful word if applied with care. Although it is a general word (like religion or science), it can be understood only in particular cultural contexts or historical circumstances (like religion or science). Animism is not primitive, either in the sense of being logically prior or because it is believed in by people whose societies have not developed (whatever that might mean). Animism is not best seen as internal, a state of belief, but as a mode of action, creating relationships between kinds. In conceiving of such relations it may be that all things, living and non-living, are seen as persons. Many groups *do* believe that all things are human, and hence have personhood, even though they may appear as a rock, a tapir or the Sun. Relations between persons are those of amity, indifference or enmity: as mentioned in the first chapter, some Siberian hunters think hunting works because of a sexual attraction between hunter and prey, an attraction that makes the prey offer itself to the hunter. Ojibwe people in North America make a linguistic distinction between animate and inanimate nouns, and for them rocks fall into the animate category, being able to move on their own and follow some form of rocky intention.

Animism usefully points to the many cultures that extend the idea of being human far and wide. As with any term it needs immediate qualifying and fleshing out. To say a group is animist is the start of a description, not its end. In the pages that follow we will encounter many people who can be described as animists, from Ice Age hunters, to people living in the Amazonian rainforest, or pagans in the West reacting against the mechanistic universe. They are all animists and all animists in their own way.

One crucial relationship on the grassland Steppe was between people and the horse. Human histories are closely entangled with the history of the horse, which is itself complicated. The horse was first domesticated around 3500 BCE, in the Botai group of northern Kazakhstan and southern Russia. Horses became important for riding, traction, food and ritual, forms of importance they still hold today in places like Kazakhstan and Mongolia. As Neolithic cultures gave way to metal-using ones, the horse spread west

and east. So too did bronze, wheat and barley from the west, and millet, domesticated in China, from the east. In the east there was variable take-up of horses. The analyses of bones from archaeological sites show that by 3500 BCE the horse had reached eastern Kazakhstan; by a thousand years later it was in southern Siberia, in the Minusinsk Basin and the Altai. It perhaps reached Mongolia around 1400 BCE. Some groups seem to have had relatively large numbers of horses; in other sites and areas bones of sheep or goat and cows are more common. Such variability in animal numbers is part of a broad mosaic of cultural forms found in Kazakhstan, southern Siberia and Mongolia, characterized also by varied types of rock art, houses, pottery and a developing metal culture.

The so-called Sintashta culture, on the eastern flank of the Urals, saw the invention of the chariot, a fast, light, two-wheeled vehicle, in contrast with the large and lumbering wagons of the Neolithic, pulled by cattle. The chariot spread quickly from its origin point in the Urals, reaching the urban groups in Mesopotamia, Egypt and the Mediterranean a few hundred years later, and then found its way into China, where it was produced in large numbers and beautifully lacquered. Back in the Urals, the Sintashta phase sees dramatic burials of chariots, often accompanied by large numbers of horses, indicating both the ritual importance of the horse and that it was being bred in large enough numbers to sacrifice frequently. Horses were important in negotiating crucial matters of life and death.

Dates	Events and processes
2500 BCE	Okunev art in Siberia – all surviving art is on stone, showing a combination of humans, spirit figures and objects, playing with the relationships between all of these
c. 1500 BCE	Origins of khirigsuurs and deer stones in Mongolia – khirigsuurs provide large centres of ritual concerning the dead to which people return, and deer stones play with the relationships between people, deer and objects
900–300 BCE	The first tumuli in Siberia (perhaps influenced by khirigsuurs), which contain earth, stone and wood,

	mapping the elemental properties of the landscape, and rich graves with human bodies and rich artefacts
c. 800 BCE	Scythians – mobile people with art forms blending humans, various animals (which combine with each other, and deer are central) and sometimes plants. An art of ambiguity and magic
500 CE	Uighur statues and ritual sites – possible living presences in stone across the landscapes of Mongolia and the Steppe
c. 1500 CE	Possible origins of modern shamanism, partly as a response to Russian incursions, drawing on much older roots

Table 5.2. An outline history of magic on the Steppe.

Materials and animals probably were not separate from people in the ways we might imagine. Art is an important indicator of relationships. There are deep roots to so-called animal art, in which a range of predators and prey animals is depicted, going back to the Early Bronze Age Maikop culture in the North Caucasus, around 3600 BCE, where exceptionally well-furnished graves contained wheel-turned pottery, lapis lazuli from Afghanistan, turquoise from Tajikistan, carnelian from India, as well as small gold and silver statues of bulls used to support a burial canopy and a silver vessel with onagers (an Asiatic wild ass), ibex, predators and trees engraved on its surface. The animals depicted are some of those featuring in later art, indicating their important and long-term relationships with people. Some of the fierce animals remind us of Göbekli Tepe: there is certainly no historical connection here but perhaps a continuing fascination with power and danger.

A dramatic form of art is found in the Okunev (sometimes Okunevo) culture between 2500 and 2000 BCE in the Minusinsk Basin and neighbouring areas of southern Siberia, with links across to the Lake Baikal region. Archaeological remains from the Okunev Period show combined hunting and fishing, with the herding of cattle, sheep and goat (but not so many horses); sites have also produced decorated pottery and small items of copper and bronze in the form of leaf-shaped knives and fishhooks. Okunev groups buried their dead in small, rectangular, stone-lined coffins

surrounded by low stone compounds. The art of the Okunev is found engraved on to rock faces, on the insides of the slab graves, which were also painted red and black, and also on standing stones, marking the Steppe presumably at places of importance to these semi-mobile groups. By far the most striking aspects of their life were the carved standing stones, which can now be seen in museums in Minusinsk and Abakan; in museums the stones look like captives, removed from the wide Steppe and sequestered.

The central element of these representations is always a human face and/or body, mixed with a variety of other motifs, such as possible rays, indicating a link between the human head and the Sun ([Figure 5.3](#)). There are also echoes of other animal and possibly plant species, through tentacles, snakes and occasionally nightmarish predators. In this stone, the person (probably female and maybe pregnant) and predator exist in a brilliant ambiguity, so that what might be human nipples from a front view become the eyes of the predator from the side. Such merging of species prefigures later art forms, such as the Scythian, as we will see. We cannot, of course, know what these things represent, but they do play with qualities of animal, human and perhaps also celestial bodies, such as the Sun and the Moon ([Figure 5.4](#)). The figural and animate elements of the carvings might seem to us to contrast with the solid passivity of the stone from which they are carved, but that was not necessarily true for the people who carved and viewed these. Stone might be animate and mobile, its permanence marking the Steppe, but also perhaps containing intentions and actions of its own. Such stones may not have been passive representations of deities and humans but rather embodiments of them, powerful and dangerous in their own right. Indications also exist that more motifs were added over time, implying that people regularly came back to the stone to make offerings, carry out ceremonies and make additional marks. For mobile people, such spirit stones were crucial markers in huge, open landscapes.



Figure 5.3. Standing stone, attributed to the Okunev culture, recovered from the site of Ankhanov in Khakassia. It depicts a humanoid figure, whose head is surrounded by rays; snake-like tendrils and circular motifs ornament the body. A second, smaller face (also typical of the Okunev culture) has been added beside the left-hand shoulder of the figure.



Figure 5.4. One of the more complex carved stones from the Okunev Period, from Belyo Lake, Khakassia. Here the carvings enter the third dimension. The central human figure is surmounted by a complex headdress, which includes more abstract human faces; the abdomen turns into the head of a predator, which appears to consume the lower half of the stone. The concentric circular motif, to the side of the figure, with its four projections, is a common feature across the corpus of Okunev art and finds echoes in the layout of contemporary tombs. Though they are not depicted here, the stone is also covered with many rounded hollows or cup-marks. These were made after the original carving as part of a long history of human visits and reuse.

Phase 2 – wide connections established

Although hard to imagine, we could put ourselves in the place of Late Bronze Age groups on the Steppe. Summer and winter would have offered up two different worlds. The warmer months might well have been spent in the saddle, roaming over enormous areas of grassland, following sheep and goats, occasionally encountering other human groups, but also pausing at standing stones and monuments, elements of a sacred landscape with its own dangers and possibilities. The deep snows and severe cold of winter would probably have curtailed movement, with people living more permanently in relatively sheltered camps. How to map and navigate the grassland Steppe held challenges, in terms not just of space as we would perceive it, but also of the need to be aware of the animate, spirit-inhabited spaces likely to have existed in the Bronze Age. People start to mark space in new ways, the most obvious aspects of which are novel monument complexes to link with the dead, as well as to explore the relations between people and horses. The new mobility of the age meant that groups connect up more regularly, leading to flows of ideas, artefacts, people and animals. Alliances and fighting created a landscape of mutual dependency and danger, in which the dead and the living appear to have mingled.

From around 1500 BCE, in western and central Mongolia, a new complex monument type arises, with a central mound and a circular or rectangular stone fence around it, also with many small outlying mounds. These are known as *khirigsuurs*. In the Khanuy River Valley in north central Mongolia is found one of the largest *khirigsuurs*, Urt Bulagyn ([Figure 5.5](#)).² Its central plaza was formed of a single line of stones enclosing a square, which measured almost 400 m on a side and had four corner mounds; and in the centre of this *khirigsuur* was a 5-m-tall central mound. But most impressive in many ways are the 1,700 satellite mounds concentrated on the eastern and southern sides; the construction of these mounds may have expanded outwards from the centre of the *khirigsuur* over several hundred years. Only seven satellites have been excavated so far, and each contained horse remains in the form of skulls and the top vertebrae of the neck, but no artefacts. Other features were found, such as a possible path made of large recumbent stones and so-called slab graves, some of which contained mixtures of human and animal bones, some just animals, and others nothing at all. It is likely that a single group would have not made a large *khirigsuur* on its own; rather, the labour of various clans

coming together would have been needed. A khirigsuur helped to define and reinforce this larger group: in making a monument, the larger group was creating itself.

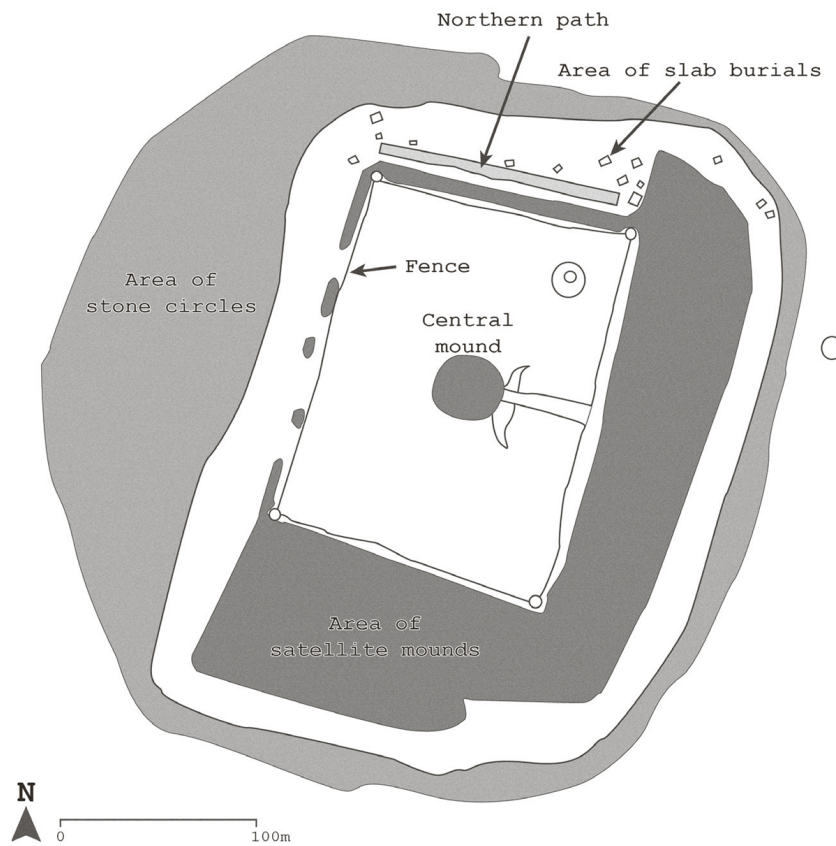


Figure 5.5. A photograph and plan of Urt Bulagyn Khirigsuur. The photo shows the central mound, enclosure and some surrounding satellite mounds.

A monument such as this would have involved a large amount of coordinated labour: it is estimated that half a million stones were used in the construction of Urt Bulagyn as a whole. Several thousand khirigsuurs are known across Mongolia and into southern Siberia, representing together a huge human effort, probably over the period from 1500 to 700 BCE. Such an effort would not have been made had this monumental landscape not fulfilled important needs.

Many khirigsuurs have an orientation just west of north, indicating that they were aligned on a celestial body rather than with features of the local landscape. It is just possible that horses were sacrificed in late autumn as offerings to the rising Sun. It is also likely that each monument had a long and variable history, being used for a variety of magical and ritual activities at any one time, which would have also changed over time. Magical practices lay at the heart of organizing space and time in Late Bronze Age Mongolia.

The mapping of time and space was underpinned by ritual, in which it is likely that the boundary of humans and their two close companion species, deer and horses, mixed and merged. The variety of ritual activities at khirigsuurs indicates a lack of overall control of ritual.

Slightly later, from around 1200 BCE, we find the decorated stones known as deer stones ([Figure 5.6](#)). Standing up to 2.5 m high, these carved stones have circular symbols on the uppermost register, representing earrings. Below these are stylized deer, sometimes with bird-like beaks carved at an angle to the stone, with backward-flowing antlers and legs often tucked beneath them. A line probably represents a belt from which hang axes, daggers, knives, swords and battle picks. It is possible that the deer designs represent tattooed human bodies, and people may have been covered in deer patterns. The close relationship between humans and deer is clear, but also between people and stones, as we first saw with the Okunev. It is certainly the case that deer stones represent an important phase in the development of so-called animal art, found abundantly with the Scythians from around 800 BCE onwards.

The number of horses and the complex mapping of time and space through the construction of khirigsuurs indicate that from around 1400 BCE onwards we see the first horse-borne pastoralists of the Steppe. New forms of horse gear found from around 1000 BCE, such as a swivel bit allowing for greater control of the horse's movements, reinforce this conclusion. Unlike

city dwellers, always in proximity to their neighbours, mobile people had lives characterized by absence as much as presence, so that when, where and how a larger group met up was vital.



Figure 5.6. View of one of the twenty-three deer stones in the Jargalantyn-Am complex in the Khanuy Valley in Mongolia. Though they may not be immediately recognizable as such, these stones are representations of human figures. Typically faceless, they gain an identity from the sets of ornaments and artefacts that they carry. The circle at the top of the stone represents an earring, below is a beaded necklace, and around the bottom of the stone a patterned belt. Above and below the belt various artefacts are placed as though suspended from the belt or held in the figure's invisible hands – see the items depicted to the right of the image. Across the rest of the stone's surface are the stylized deer that give the stones their name. These are interpreted, variously, as ornamented clothes, tattoos or (more esoterically) representations of the individual's status in society.

The khirigsuurs allowed regular movements to be planned and carried out, but also people would have dealt with important deaths and significant

births. Khirigsuurs might have been constructed on routes across the landscape, noting crucial paths of travel across the Steppe. They also had complex histories, which built up over time, as groups came back, built more satellite mounds and sacrificed further horses. Satellite mounds and the deposits they covered built up over several centuries, mapping the history of the group as a whole.

Phase 3 – the connected Steppe

After 800 BCE the khirigsuurs fell into disuse, and our attention shifts north from Mongolia to the Siberian republic of Tuva, where two large and impressive burial mounds (or Kurgans) have been excavated, together providing unparalleled insights into the people we call the Scythians. The profusion of grave goods in the burials is striking, as well as the range of human and spiritual relationships with which people were engaged. Representing some of the glories of world archaeology, these finds are only just becoming known to the world outside Russia.

On a high plateau cut by the Uyuk River, which eventually flows into the Yenisei, and bordered by the Sayan Mountains, is a line of tumuli: ancient mounds constructed of earth, stone and wood to house the dead of the community, both human and animal. In the years around 800 BCE a local group organized themselves for a large project: the construction of a low circular mound initially of drystone walling some 120 m across and eventually 4 m high. This tumulus is now known as Arzhan 1. Within the stone surrounds is a unique construction of smoothed larch logs, laid in lines radiating out from the centre of the mound and then crossed by lines concentric to the mound's edge, to form seventy chambers ([Figure 5.7, top](#)). In the middle of the mound is a square wooden structure containing coffins of up to 15 people in all. These are heavily disturbed due to robbing. In the chambers around the central burial are 160 horses, a considerable and valuable herd. More play with materials is indicated through over 300 rounded stones, roughly 3 m across, in a crescent shape east of the mound.

The mound's looting means we know frustratingly little of the rich finds originally buried. Some finds have been made and included early textiles and glass beads, but also bronze horse gear, and early examples of the Scythian animal style, such as a large bronze plaque of a coiled predator, probably a horse breastplate and five bronze pommels in the form of a

mountain ram, which might have decorated a chariot. Deer in gold or bronze were stylistic descendants of those seen on deer stones and indeed two deer stones are reused within the monument. It was not just the derivation of the objects that might have been significant but also their placement. The geography of offerings inside the mound played with the broader geography of the group's connections: the northern wooden chambers have objects from eastern Kazakhstan, the Altai and Minusinsk (all west and north of the area), while southern chambers have items from Tuva and Mongolia to the south. The mound and its contents represented a synthesis of regional connections, in which human links were important, but also the directions from which things came may have had a cosmological significance.

The best precedent for large, complex circular constructions containing humans and horses lies in the khirigsuurs of Mongolia. Arzhan 1 ([Figure 5.7, top](#)), constructed just before 800 BCE, overlaps in date with the end of the khirigsuur tradition, around 700 BCE. Artefacts moving between the two regions show one region knew about the other. The influence from Mongolia on the ancient people of the Tuva would have been not just in construction, but also through the cosmological system that such monuments helped to work out. Arzhan 1 is not identical to any khirigsuur, but these in any case varied a lot. The innovations were in the construction of wooden chambers and also in covering the whole mound in earth to create a low platform. The construction in earth, perhaps in the form of cutgrass turves, became the basis for mound construction across Central Asia ever after, when mounds became raised, most often in circular forms but sometimes also as pyramids. We will come back to the potential significance of all this after considering the further extraordinary finds made in Arzhan 2.

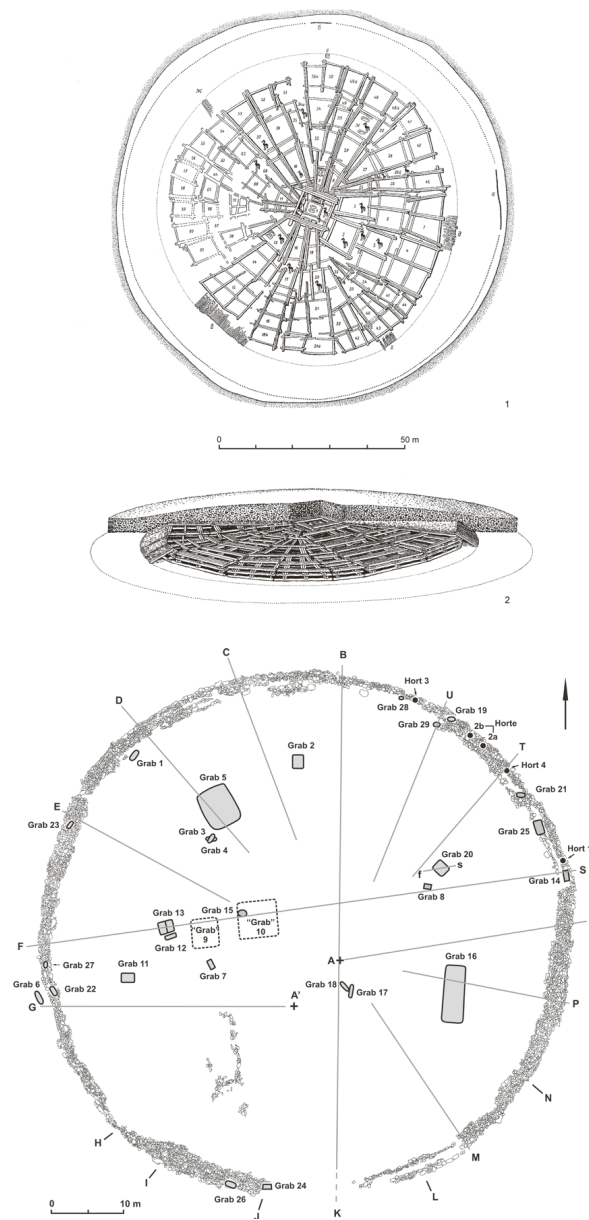


Figure 5.7. Plans of the burial mounds of Arzhan 1 (*top*) and Arzhan 2 (*bottom*). They are named after the modern village of Arzhan. The plans show the construction of Arzhan 1 through a series of wooden chambers (with some schematic horse burials shown) around a central grave. Arzhan 2 lacks a wooden construction, with graves sunk into pits, then lined with wood in the positions shown on the plan. The lines marked with letters are archaeological sections that showed the stratigraphy of the mound.

The mound of Arzhan 2 ([Figure 5.7](#), *bottom*) lies at the opposite end of the line of kurgans from Arzhan 1, and this line might have been constructed sequentially. The erection of Arzhan 2 at around 620 BCE might then indicate the end of a particular sequence of activity unfolding over 200 years, perhaps by members of a single clan. Arzhan 1 was excavated in the 1970s, while Arzhan 2 was investigated between 2000 and 2004 by a joint Russian–German team led by Konstantin Chugunov of the Hermitage Museum and H. Parzinger, then of the German Archaeological Institute.³ Arzhan 2 is a low, 2-m-high mound constructed of a platform of stone slabs capped by a thick layer of clay. The outer circumference is a stone wall. On the eastern side of this wall up to fifteen slabs with rock art were found. These were originally carved on a rock surface at some distance from the mound around the time Arzhan 1 was constructed, if not a little earlier. They were cut from the rock face and incorporated into this new monument, being the first thing visitors from the east would have seen. As well as deer with elaborate horns, reminiscent of carvings on deer stones, Bactrian camels were also depicted. Bactrian camels were domesticated somewhere in Central Asia around 2500 BCE, becoming important load-bearing animals, especially able to negotiate cold and arid areas but also important sources of meat and milk. Because of their variety of uses, they spread rapidly over a number of centuries, remaining an important aspect of many people’s lives today. A further slab shows a chariot and horses. The chariot might have been used for ritual as well as military purposes.

In Arzhan 2 the main tomb was not robbed, providing an indication of the range of artefacts placed in many such tombs, the bulk of which have been looted. The main tomb (indicated as Grave 5 in [Figure 5.7](#) (*bottom*) and shown in [Figure 5.8](#)) lay in a rectangular pit dug into the soil beneath the mound and was lined with inner and outer wooden chambers. The inner chamber was covered with felt on its walls and floor. Analysis of the larch wood of this chamber shows the trees were between ninety and 120 years old when felled, with felling taking place in autumn or winter. In the centre of the chamber was the body of a man, between forty and fifty years old, and a woman some fifteen years younger. It is unlikely that they both died at the same time of natural causes, and one may well have been deliberately killed to accompany the other.



Figure 5.8. The bodies of a man and woman, together with their grave goods, in Grave 5, Arzhan 2 mound.

The man and woman were covered in gold, with some 5,600 gold items found (for a general impression, see the reconstruction in [Figure 5.9](#)). Starting at the top and working down, the man had a high hat with a gold-leaf deer at the top and golden horses below. A gold pin was also found with a sheep as its head, but it is unclear where this had been placed. Round his neck he wore a gold neck ring with a square front section covered in predators, the rest being a solid ring with animals spiralling around it, which included boars, camels, deer, feline predators, goats and horses. Some 2,600 panther appliqués cast in gold sheet were sewn on to the outer surface of the man's cape. These were hand-made in large quantities, being impressive for their sheer repetition alone. The man had a small whip, the wooden handle of which was covered in gold. On his belts, which had gold fittings and coverings, hung an iron dagger inlaid in gold representing both animals and spiral ornaments, accompanied by two curved iron ring-headed knives with gold inlay. Hanging from the wall of the tomb (but this probably would also have hung from the belt) was a pointed iron battle-axe, with spiral shapes inlaid in gold. Nearby was a so-called *gorytos*, or quiver,

decorated in gold fish-scale and containing iron arrows with gold inlay in the shape of birds and other creatures. The bow had extravagant gold deer antlers attached, as well as gold flames. Most amazing of all were the many thousands of small gold beads sewn into his trousers, giving the impression that his trousers were made of gold. Last and certainly not least, his shoes were also covered in gold beads. Near the body were two bronze mirrors with gold coverings over their leather straps. Merely recording all this gold is a complex process. The Russian–German team that excavated Arzhan 2 describe the gasps of surprise they let out when the burial chamber was first revealed.

The woman was slightly more modestly adorned, but still with great elaboration by most standards. She wore a high hat, long since decayed, which archaeologists have reconstructed with two long needles in the front: one with a deer with long antlers at the top and an animal frieze down the body; the other with a small bowl at its top with a winged ornament; both were held in place by a gold band. Below these, at the forehead, was a set of stylized antlers, a pair of gold-leaf horses and a small predator impressed into gold sheet. Round her neck was a solid gold neck-ring, with a running frieze of animals and spirals, held at the back by two gold chains. Two gold earrings had delicate granulation (tiny beads of gold soldered to the body of earrings). Her outer cloak was also covered with gold predators impressed in gold. On her left wrist was an armband of woven gold wire. She too had an iron dagger inlaid in gold hanging from her belt, with spiral decorations down the middle of the blade, surmounted by cats and other animals across the pommel. She had two gold leg-bands and shoes covered in gold beads. Accompanying her was a small gold vessel engraved with animals, as well as a wooden bowl with a handle covered in gold in the shape of an animal's leg. Finally, she was also accompanied by a bronze mirror with gold covering its leather strap.

Other bodies were found: men on the eastern side of the grave and women to the north-west. In these cases there are clear indications of violent death, with fatal blows to the head from battle-axes or clubs. The headgear of a horse was given its own special burial, as well as a row of fourteen bridled horses from different herds (as shown by genetic analysis). Around the burial mound were up to 200 small stone circles containing burnt bone and objects, in a pattern again reminiscent of khirigsuurs.

Objects and horses were buried in a manner resembling that of people. In the area around Arzhan a number of deer stones are known.



Figure 5.9. Reconstruction of the man and woman from Arzhan 2 and their gold adornment.

On their bodies people displayed a great range of relationships with metals and cloth, but also with a range of animals. None of these elements were static. One animal species turned into another in a spectrum of transformative magics. But it was not just in their persons that people played with the manner in which they were entangled with the world. In death, play starts with the burial mound. The clay, turf, stone and wood making up the mound had a variety of origins. We have seen that panels of older rock art were cut from rock faces and included among the outer kerb stones of Arzhan 2, but there are indications that some of the clay came from local lakes at some distance from the mound, when there were closer

sources of clays with the same physical properties. Each mound may have represented a condensed map of the landscape, perhaps concentrating spiritually charged aspects of the landscape into one spot, thereby focusing spiritual energies that would otherwise be dispersed across the land.

Variations on a theme were played out. The two Arzhan mounds display broad similarities in their circular shape, their low mounded nature, the use of kerb stones and so on, but each differed from all the others, as a new symphony does from the preceding work of the same composer.

Mounds required much coordinated labour but also thought and planning. People acted in large groups, but they did not act by rote, instead working out the particularities special to the history of the group at that moment, the persons and horses being buried, as well as the types and histories of the artefacts incorporated into a tomb. A burial mound and its contents can be seen as an exploration of the relationships of the group and experiments in what their significances were in shaping the life of that group. Materials came from long distances and all directions, from the exotic origins of Indian silk or amber, to the more local origins of wool, skins or wood. Great skill was exhibited in making elaborate gold daggers or bronze axes. Due to our notions of death as the end of activity we have assumed that the weapons in graves had been used by people in their lives and were passive in death, but combat could also have been expected in the spirit world. Death transformed a person's state, rather than ending their existence. An emphasis on transformation is certainly seen in the animal art in general, where the antlers of deer become the beaks of birds or predators eat deer, digesting the powers of another species so that they become part of themselves.

Magical practices of transformation brought together many powers of the world into one spot on the landscape. The line of kurgans at Arzhan, which may have indicated a line of kinship, were important marks in the Uyk Valley for mobile peoples for more than 2,500 years.

South of the Arzhan burials in Tuva we find the Ukok Plateau: it lies mainly in Russia but borders on Mongolia, China and Kazakhstan. The grasslands of the Ukok Plateau sit at over 2,000 m and today are home to indigenous species, such as the snow leopard, the argali mountain sheep, the steppe eagle and a black stork. For much of the year the ground up here is frozen; in the brief summer months it does thaw and flow, but then only on its surface.

Cold is key to the preservation of ancient remains. The frozen tombs of Pazyryk reveal a past magical world of deep complexity. The present-day village of Pazyryk lies in a small valley near the Great Ulagan River and has given its name to tombs first excavated between the 1920s and 1940s by the Soviet archaeologist Sergei Rudenko.⁴ Rudenko excavated five large burial mounds containing wooden chambers in which were placed log coffins, each containing a man and a woman with a range of artefacts. The ground is frozen for much of the year anyway, but the existence of mounds over the tombs provided extra insulation, with the result that the ice in the tombs did not melt, naturally conserving the organic materials that we know people of the past used everywhere but that rarely survive. In the Pazyryk tombs we can see that the wooden chambers were lined with plain and patterned felts. Although most graves were robbed long ago, what escaped the thieves and the cold has preserved is still spectacular: the felts, textiles, fur and even human skin. Some tombs are intact, as we shall see. Horses and their gear were placed in burial pits outside the human tombs. Only a short period of time separated the Pazyryk tombs, which were constructed between around 500 and 220 BCE, a relatively brief flurry of burial activity that has left lasting and astonishing results.

Further dimensions of the magical worlds of the Steppe have been revealed in tombs that have been excavated since by colleagues from Novosibirsk. Between 1990 and 1993, Natalia Polosmak discovered the burial of a young woman just short of thirty years old, in the tomb of Al-Alakha 3, on the Ukok Plateau. Now known as the 'Ukok Princess', the woman was buried around 500 BCE. She had suffered from a range of conditions during life: osteomyelitis when young, breast cancer in her last few years, and she had also broken her right arm badly, perhaps falling from a horse. Chemical analysis has shown traces of hemp in her hair, which she might have inhaled as a painkiller, but maybe also to achieve an altered state of consciousness. It is likely that she died at a distance from where she was buried, her body mummified en route, indicating the importance of the Ukok area as a place of burial. People felt a need to return her body to this spot. Her tomb was found intact beneath a smaller, disturbed tomb, fully encased in ice, with six horses nearby. Her log coffin was decorated with carved wood and leather appliqué; her shoulders had tattoos of a deer with backward-facing legs and animals in combat. So enigmatic and attractive

are her tattoos, they have been born again in modern tattoo repertoires around the world.

Lying on her right side, the young woman wore a repaired blouse of Chinese silk over an ankle-length red-and-white woollen skirt, with high felt boots decorated in gold. On her head was a tall wig, in which perched tiny wooden birds. On her ears were gold earrings. A wooden torc with images of snow leopards and a griffin was round her neck. In her grave were a number of vessels of pottery, wood and horn, including two wooden tables, which still had meat offerings and a knife; food and drink were provided for the dead, helping them to feast and enjoy the afterlife. A felt bag contained a silver mirror and some glass beads. Elsewhere in the ancient world mirrors had associations with divination, which is also true for modern Siberian shamans; mirrors do not reflect the everyday world, but help people to look into another one, possibly the future. This ancient young woman's body and objects were removed first to Novosibirsk for conservation and study, but are now in the museum in Gorno-Altai, the capital of the Altai Republic in which the Ukok Plateau sits. They have been the subject of legal claims by indigenous people from the Ukok, who claim that earthquakes and other misfortunes have resulted from the removal of this body. So far, the local court has ruled against reburial, but the ongoing power of such ancient bodies is obvious, blending as they do into more recent notions of spiritual continuity and magic.

In archaeology we generally lack the full organic variety of past lives, provided by bodies, textiles, leather and wood. But at Pazyryk we can see that people layered up their world with a stratigraphy of images. The most personal layer was the canvas provided by the skin, on which were tattooed various powerful images of animals. Tattoos might have been active agents transferring the power of one species to another, enabling humans who had predators, deer, horses or birds on their skin to feel the power of the animal reaching deep within them. As with the animal imagery of the Steppe more generally, many tattoos showed predators devouring deer, an image of rebirth through death, especially resonant when a human body was placed in a tomb ([Figure 5.10](#)). Although we cannot be sure about this, tattoos might have been applied to the body as the person went through life, to mark important moments in the life course, changes of state that all people go through as they age and approach death. Some lines of tattooed dots perhaps indicate some sort of medical practice, with possible links to

acupuncture, perhaps hinting at theories concerning the energy flows of the body. Certain species were applied to particular parts of the body: fish, associated with depths, were commonly tattooed on the legs, eagles were found on hats, and fantastic hooved beasts whose antlers terminated in birds' heads appeared on the shoulders and back. A single person spanned the cosmos.

One of the most amazing items of headgear comes from the second burial mound in Pazyryk, dating to just before 300 BCE ([Figure 5.11](#)). Rising from a felt hood (dyed with red madder) is an arc of carved wood, with leather attachments. At its top is an eagle's head with prominent eyes and beak wide open to hold the head of a deer. The deer has horns of leather and the eagle has a sort of leather mane. On each side of the main eagle's neck is another eagle, carrying a goose. The body of each of these eagles is in relief, but the head, attached separately, is three-dimensional, a rounded body emerging from a flat surface, as if from another dimension. Surfaces, such as human skin or rock faces on which art is found, may have been seen as the contacts between different dimensions, so that three-dimensional heads emerging from a flat surface could indicate a creature moving between dimensions. On either side of the base of the main wooden finial is an eagle (or maybe a griffin) carrying a deer: the bodies of both are in thick leather, with heads of wood and then extravagant horns, legs and wings in leather. There is damage to the right-hand side, which might be due to a blow from a pointed battle-axe used in warfare at this time.



Figure 5.10. Tigers and leopards attacking elk. Tattoo on the right arm of a woman in Burial Mound 5, Pazyryk.

The Pazyryk 2 headdress is an elaborate example of forms of headgear found elsewhere in the tombs of southern Siberia. Such male and female headgear could not have been everyday wear, especially not when riding a horse. Ritual performances or warfare, which itself might have had a ritualized aspect, might have demanded specially spiritually charged clothing. Animals and birds oppose each other, often with the birds being the aggressive and dominant element; sometimes they take the form of griffins, which combine attributes of big cats and birds; it might be that the spirits of the heavens had more power than those of the land. But the boundaries between the creatures of heaven and Earth are not fixed, so that one can turn into another or be made of composite attributes. Clearly at this distance in time we cannot know exactly what these pieces evoke. Equally clearly this is not the world that many of us now take for granted, in which species cannot get muddled up with each other. Magical transformations occurred by processes not understood through the laws of biology. For us too the dead stay dead, and our world is not in intimate contact with other

dimensions from which things can emerge. In the world of the ancient Steppe all these were possibilities.

Muddled relations were commonly found between horses and other kinds of animals. Horses wore caps and masks too, often giving them antlers. In one elaborate case, at Pazyryk 2, we find a cap with holes for the horse's ears, topped with a very realistic felt ram's head complete with beautifully curved horns, between which stands a bird like a cock with outspread wings stretched across a wooden frame. On the front of the cap are seven fish made of gold foil. Other versions of horse caps have extravagant deer, griffins, rams or even predators with horns. Bridles, bits and reins were made in a combination of wood, bronze, iron and leather, with additional decoration in gold foil; wooden decorations can be abstract, composed of ram's heads or birds. A further layering of imagery on horses was found through saddle bags, made variously of leather, wood and wool, with leather appliqué decoration showing predators eating deer, griffins or other composite creatures. On a saddle cover from Pazyryk 1 is a fish with a ram's head in its mouth to add to the variety and complication of the imagery.

A riot of relationships emerges from the graves of the Scythians. To be a powerful person was not just to operate in the human world; nor was it to have a purely economic relationship with other species, in which they were valued only as food, drink or in terms of their worth in exchanges. Human power was part of broader cosmological powers, which were found distributed throughout the universe: in the rocks, mud and turf making up the kurgans, in the close links to the horse, and in the varied realms of sky, the land and the underworld. All sorts of things were probably animate in this world, and might even have been seen as varied forms of humans, as we find in animistic beliefs of more recent periods. The sharing of energies, of spirit and muscular power, involved mutual respect across kinds, the acknowledgement of kinship and much manoeuvring for position within a complex world. The grave goods of Arzhan 2 and in the Pazyryk graves are magical in that they enchant us now, dazzling our senses. But gold pins, pectorals, dagger inlays ([Figure 5.12](#)) and animals from an older magical world are preserved in our present, where they confront our current common-sense notions concerning what the world is composed of and how things are related. The Scythian world was widespread, long-lasting and had echoes in the art and belief systems of later periods.



Figure 5.11. A headdress showing a bird of prey with the head of a deer in its beak from Pazyryk 2 (*top*), which was supported by a felt cap decorated on either side by leather appliques in the form of a bird of prey attacking a deer (*bottom*).

Magical objects are found in minor variants across the Steppe. So far we have looked at their easternmost and earliest expression. The distribution of burial mounds across the Steppe is staggering, through Kazakhstan (itself huge), the southern areas of Siberia, to the Urals, and then the Black Sea region. Complex kurgans composed of a variety of carefully chosen local materials can be followed across the Steppe to the west and also contain human bodies whose goods in death echo the gold of Arzhan. Although there are variations, the overall similarities of both kurgans and artefacts between around 800 and 200 BCE is striking evidence for long-distance links. For the first time after 800 BCE a new network of connections is created across the Steppe, linking a huge area of different groups who share a common magical ideology and sets of striking artefacts.

A broadly similar repertoire of artefacts was buried in Filippovka in the Urals, sometime after 300 BCE – an iron dagger with a gold hilt is especially reminiscent of the one in Arzhan 2. Large burial mounds, such as Kelermes in the north Caucasus, contain many horses. Further west again, on the north shores of the Black Sea, lies a series of mounds, many of which were excavated in the nineteenth century, containing some of the most spectacular of all so-called Scythian artefacts. Gold plaques, scabbard coverings and gold cups show Greek influence, unsurprisingly, given the Greek colonies set up around 800 BCE in this area. Material further east, in spectacular finds such as the Oxus treasure, shows influence from the Achaemenid (Persian) world. Further west into Europe, there are distinct echoes of these Steppe traditions, as we shall see in the next chapter.



Figure 5.12. Iron dagger inlaid in gold with animals and abstract designs on the blade, opposed predators on the top and bottom of the pommel – from Arzhan 2.

Kurgans were made as places with their own spiritual values and local histories; yet the widespread similarity of mounds and materials in them indicates a much broader set of connections, the foundation for which was a shared cosmology and sets of magical practices. The magics of the Steppe were based on an animistic set of beliefs, in which the close relationships between animals, peoples and material things were emphasized, rather than their differences and distinctions. This is the opposite of Linnaean classification, in which things are separated. The local varieties in burial and what we know of settlements (which is not much) indicate that these

did not derive from a single people. We have no indication in the historical sources, such as from the Greek writer Herodotus, or Persian and Chinese accounts, that the people of the Steppe had a single name for themselves or any sense of overall unity. Instead we are looking at a series of linked groups, with people, materials and practices flowing often from east to west but also from south to north. There was variety and experiment in human relations with other kinds of being, which were never fixed or fully known. The general set of practices and beliefs they developed were found at the end of the last millennium BCE, in variants of the art forms often known as Celtic, as far west as Ireland.

Phase 4 – later states and empires

The magical transformations of the Scythians morphed into new forms. After the Scythian Period, we see the first example of horse nomads who were expansive and invaded as a relatively single group: the Xiongnu. In reality the Xiongnu were probably a confederacy, created around 200 BCE through resistance to the emerging power of Han China and lasting until around 100 CE. The Xiongnu show some continuity in art styles with the Scythians and therefore possibly had a similar set of beliefs. Their expansions out of what is now northern China and Mongolia to the north displaced other groups: the Ket, for example, who still exist today, might have been moved into the middle Yenisei area as a result of the Xiongnu incursions. From then on Mongolia acted as a pump, with groups emerging and coalescing, then moving west to various degrees, and also extracting tribute from China, or trading horses for Chinese food and luxuries. The Turks, whose origins were in Siberia before they moved west, were succeeded in Central Asia by the Uighurs around 740 CE, who combined older animistic beliefs with, first, a conversion to Buddhism and then, in the fourteenth century, to Islam.

The Uighurs were then assimilated by the most famous and successful of all nomadic groups, the Mongols. Coming together under Genghis Khan in 1206, the Mongols created the largest ever land empire, reaching the gates of Budapest on the very western end of the Steppe and conquering China. The Mongols mixed many beliefs, with some notion of a transcendent deity (Tengerri) who was part-personified god but also an embodiment of cosmic order. There was a host of lesser gods (possibly ninety-nine), in addition to

the series of local spirits of place and personal guardian angels. A fire deity may show influence from Persian Zoroastrianism. For the Mongols the land and the things in it were alive and powerful, and it was necessary to cultivate relationships with them. Inheritances came from a variety of traditions, including those of the Steppe, which go back to the Scythians, if not the Bronze Age.

For the groups we now see as the indigenous peoples of the grassland Steppe, forest and tundra, the last two millennia have witnessed incursions of a great variety of polities, who have taken land, extracted resources and pursued goals of their own, often through conquest and subjugation. These large horse-borne polities started in the east and expanded west, or occasionally south into China. The one counter-movement was the final incursion of Russians, who came from the west and, although they rode horses, intended to settle and till the land. Unlike all the other groups, who held some mix of animistic and indeed shamanistic beliefs, the Russians were Christians, following a religion with a doctrine, a distant God and a view of the world as a series of economic resources. Indigenous groups since the sixteenth century have coped with this new threat, which differed from earlier incursions in that the Russians took land, setting up villages and cities, culminating in the collectivization of all in the Soviet Period.

It is no coincidence that the initial indications we have of shamanism as we recognize it over the last century or more arise around 2,000 years ago, at the time of the first Uighur incursions. In the last centuries of the first millennium BCE we see the earliest direct evidence of symbols of a type found on more recent shamans' coats ([Figure 5.13](#)). Shamanism arose from a repurposing of earlier belief systems, which came into being around a politics of resistance to unified groups, such as the Uighurs, and it has developed in this vein ever since. Esther Jacobson-Tepfer⁵ has made the point that artefacts connecting people and animals, or animals with animals, which were found generally across the social spectrum in the Scythian world became concentrated only in the person of the shaman in more recent periods; the shaman alone could interact with the spirits of animals and the powers they represent. Shamans were group spiritual troubleshooters, tasked with attempting to resolve issues facing the group, which might manifest themselves in everyday reality, but always had a root in the spirit world. As the troubles of colonialism proliferated, so too did the shamans.

Phase 5 – shamanism and animism

Present-day shamanism cannot be traced back to the Palaeolithic, or only in the very general sense that people lived in and explored an animate universe. Recent shamanism has come about in a particular cultural and political context of resistance. Shamans have not been able to change the basic facts of incursion and dispossession, but perhaps their actions have helped to ensure some cultural continuity in the face of continuing threat. Cultural continuity is vital to those whose overall ways of life are under threat. In Siberia, where people need to take a life in order to live themselves, shamanic practices are often part of a hunter's view of the world, but this means that spiritual payment is necessary for the souls of the animals that people eat. The shaman can intercede with a being known as the spirit owner of the animals to help to negotiate these transactions. Shamanic beliefs are deeply practical and pragmatic, although they might seem mystical to outsiders. There is a seventeenth-century account of the Mansi from the northern end of the River Ob stripping the statue of their main spirit of its clothes and throwing it in a muddy hole, where it was refused food and drink as a punishment for not working powerfully enough on behalf of the group.



Figure 5.13. Bronze objects in the characteristic 'Perm Animal Style' from Perm Oblast and the Komi Republic (Russian Federation): Glyadenovskij Kostishche (first–third centuries CE) (*top left*); Visim (seventh–eighth centuries CE) (*top right*); and the Ukhta Basin (eighth–eleventh centuries CE) (*below*). Like other similar artefacts, these show themes associated with historically attested shamanic traditions.

Shamanistic practices documented for the last few centuries developed in a particular historical context: that of colonialism, either in Siberia or North America. These were cultures reeling from the impact of disease, the theft of land, the over-exploitation of fish, fur-bearing animals and mining, in addition to the breakdown of many structures of society. Small groups were experimenting and attempting to evolve a new role for themselves within the stifling embrace of a wider state culture. From the late seventeenth century onwards, Russian troops and settlers moved east of the Ural Mountains, the conventional barrier between European Russia and Siberia. Desire for territory, for fur and fish in the northern latitudes of the Steppe's forest, spurred this movement, as did the search for farming land further south. As with equivalently destructive processes in North America, the result was the mass death and cultural destruction of native peoples. The

shaman, as the human embodiment of a foreign and dangerous ideology, was the object of brute force from Russian colonialism, missionary zeal and then collectivization, being killed, persecuted and suppressed from the seventeenth to the twentieth centuries.

Today shamanism is reviving, mixing what are seen as old and new practices to form something historically grounded, but that people hope will be appropriate for the present. The anthropologist David Anderson describes⁶ a visit to the Orochen, a group of Evenki speakers and reindeer-herders living on the Vitim River east of Lake Baikal. Here he encountered Nikolai Aruneev, who had lived in town for some years, but had returned to his home after a prophecy that he would become a shaman. Nikolai was moving around the territory of the group readopting orphaned spirits in the post-Soviet Period to revivify the landscape. His efforts were controversial and not appreciated by all in his small group, partly because he came up with new ceremonies only loosely based on old ones. Anderson describes the sacrifice of a partly blind reindeer, which was killed with a blow to the back of the head with an axe (normally considered disrespectful) and then skinned and butchered in an unusual way. The skin was hung from a frame propped up in a tree in a manner that echoed the ways in which the clothing and belongings of dead people were hung up. Although a new ceremony, it was loosely based on an old photograph Nikolai had seen in the museum of the nearby town of Bagdarin. Old practices gave rise to new ones but through varied means.

Shamans are lightning conductors in the unusual sense of trying to conduct and orchestrate something as powerful as lightning, taking into their being all the most dangerous energies and forces animating their society and channelling these potentially destructive energies in creative ways.

The rich magical ecology of the Steppe

A few years ago I was part of a group of Chinese and British archaeologists visiting sites in Mongolia, along with Mongolian colleagues. On this particular day we had come to see a large Bronze Age stone monument in central Mongolia. Next to it was a small Turkic Period statue of broadly human form erected some 1,500 years ago, perhaps placed next to the Bronze Age monument to draw power from the older site. As we stood

talking and taking photographs, we became aware of a family car being driven across the grassland, a long way from any road. The car eventually stopped by the small statue and a family group of elderly grandfather, parents and two young children got out. The family were surprised to see us there and were rather shy at first. After a while, having made a rather difficult journey in a car not suited to off-road driving, they obviously decided to begin what they had come to do.

They got out small containers of milk, vodka and rice and walked round the statue, making offerings to it by throwing the liquids and the rice grains over it. Not wanting to intrude, we did not ask them what they were doing, and there was no reason why they should volunteer information to these exotic intruders. It was the everyday, but determined, nature of their reverence for the statue that was most striking. Our Mongolian colleagues were unsurprised and said that making offerings to statues was common across Mongolia, particularly after independence from the Soviet Union in 1990. Such statues are seen as living presences and often considered connected to family groups; these offerings we witnessed might have been part of a regular pattern, or perhaps a request for aid during a particular difficulty. Present-day Mongolia has a complex magical landscape of ancient statues, trees with ribbons tied to them as sites of shamanistic activities and natural places in which spirits reside. Similar magical landscapes are found across Siberia.

The grassland Steppe appears simple ecologically, being dominated (as one would expect) by grass. However, over thousands of years people have implanted spirits and spiritual resonances into the central Eurasian landscape, making it spiritually complicated. Such spiritual seeding derives from the distant past, still having power today. We saw local people's dismay in Pazyryk at the excavations of tombs and the removal of bodies, thought to cause earthquakes and other difficulties. Large tombs, khirigsuurs and deer stones direct movement and provide places for people to gather. A structure of care has grown up for landscapes and spiritual forces, in which shamanism is now an important part. Shamans can act as mediators with the spirit world in cases of difficulty, anger or dislocation.

The history of the Steppe over the last 2,000 years has seen a shift from dominance by mobile horse people, from the Xiongnu to the Mongols, towards settled populations emanating from Russia and China, establishing towns as new fixed points and introducing world religions. Outside

Mongolia, native people are few and probably dwindling in numbers. However, since the 1990s shamanism has become legal again, and it is striking travelling across these regions now how much shamanic activity is evident in shrines, groves of trees and the use of older monuments. Prior to the coming of outsiders, there was little in the way of formalized science on the Steppe, and all religions originated elsewhere. What is elsewhere a triple helix of approaches to the universe has here been dominated by magic. Horse-borne groups on the Steppe have long and complicated histories, still poorly understood but intimately connected to magic. The last 500 years have been traumatic ones for Steppe peoples, with the incursion of Russians from the west and Chinese from the south. Both incomers have tried with various degrees of severity to wipe out magical and shamanistic practices. That magic is alive and well, important enough to encourage families to drive across the Steppe to make offerings to an old statue, shows how central such ideas were and still are. A full understanding of Steppe cultures, past and present, will not be possible until we grasp their magic.



6. Magical Traditions in Prehistoric Europe (10,000–0 BCE)

Magical fictions are underpinned by magical fact. The legends of King Arthur were first written in the Early Medieval Period, with the account of Geoffrey of Monmouth, *Historia regum Britanniae* (*History of the Kings of Britain*), around 1136, one of the fullest and earliest. Here we meet Arthur and the wizard Merlin, as well as another major character, Arthur's sword, Excalibur (probably a Latinized version of a weapon named in various Welsh tales as Caledfwlch). It is only later that the Lady of the Lake appears, not just in Arthurian stories but in tales from various parts of Western Europe. It is she who hands Arthur the sword from within the lake, and in some versions of the story Excalibur is returned to the waters after Arthur's death ([Fig. 6.1](#)). We will start our story of prehistoric European magic on the shores of a lake in present-day Yorkshire, where people lived some 10,000 years ago and carefully placed parts of hunted animals and artefacts into the shallow water at the edge of Lake Flixton. No swords or metal existed at this distant time, but the lure of water did. An extraordinarily long-lived tradition of carefully depositing important items in land and water existed in Europe from deep prehistory through into the Medieval Period, as we shall see; like Excalibur, objects were seen to have power beyond the functional and many may have been named, enjoying their own biographies in a manner parallel to people.

Geoffrey of Monmouth starts his history of Britain with the Trojans, who establish royal lines in Britain, so we cannot take his history as fact.

Histories of Arthur were rewritten for each succeeding age and often became bestsellers, from Malory to Tennyson, and into Hollywood fantasies. The stories are powerful, tangled and contested. Woven through the tangle of fact and fantasy are long-lost magical practices, the deep history of which is being recovered through archaeology.

Three sets of magical traditions coexisted in prehistoric Europe: astrological practices based on the Moon and Sun among other bodies; a series of careful deposits of artefacts and bodies across the landscape as a means of transacting with the spirits of place and perhaps the human dead; and a concern for transformation and the creation of powerful objects, seen in the constant play with materials but also in so-called Celtic art of the later Iron Age. In Celtic art we can see the influence of the Steppe, as mentioned in the previous chapter. Europe presents a combination of transcendence, transaction and transformation, with the latter two probably most important. Two elements of the Arthurian legend have deep roots in prehistoric Europe: the throwing of a most valuable sword into the water from which it earlier emerged; and the idea that objects have power and lives in a manner parallel to people. We tend to think of the history of Europe in part as a history of technology and the changes powered by technical innovation: the Arthurian legend shows us that many of ancient Europeans' relationships with objects were magical rather than scientific.

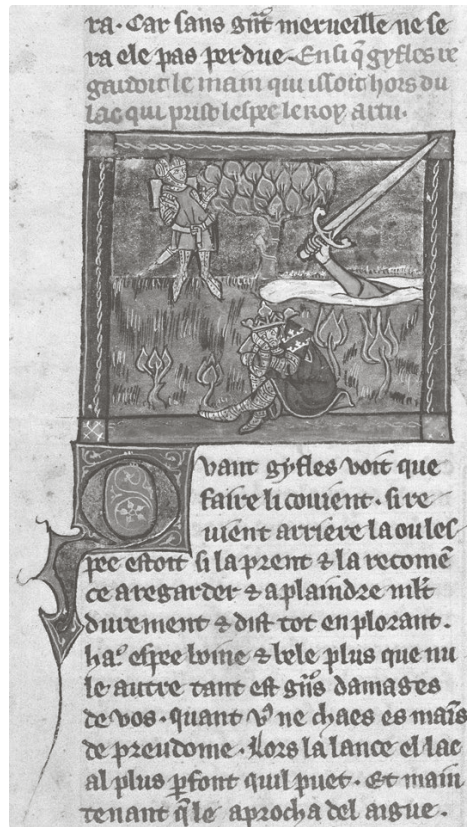


Figure 6.1. Excalibur being returned to the lake by one of Arthur's knights, and a hand receiving it. The dying Arthur is in the foreground.

Europe is one of the best researched continents archaeologically, so we can see how people mingled with plants, animals, living spaces, tombs and artefacts in different ways at various times. While there are undoubted influences from the Mediterranean world, links with the Steppe were crucial, taking on new power after around 600 BCE, when the Steppe connects up and such connections include the grasslands of Europe. In Western Europe a series of monuments was created from the Neolithic Period onwards, with complex use of stone, wood and earth, containing also deposits of people, plants, animals and artefacts in ways that are again highly patterned. In many cases alignments with astral bodies were crucial. The most famous places, such as Stonehenge, have often been intensively investigated, giving us a mass of evidence to play with, although never a simple story to tell. There are patterns in the deposition of important artefacts and bones from the Mesolithic (a period of hunter-gatherer life some 12,000 years ago), with which this chapter will start, through to the

Medieval Period, evidence of patterned transactions with the powers of the world. That tricky category of evidence, sometimes labelled as ‘art’, shows how objects, particularly from the Iron Age Period, were used to play with notions of ambiguity, transformation and wonder. We will explore these links now from a Western point of view, focusing on the shared animism of Eurasia, although the material expressions of this animism varied across this huge area.

Space and time in prehistoric Europe

In [Chapter 2](#) we looked at material from Ice Age Europe, and to maintain our chronological coverage we start our consideration here at the end of the Ice Age, with the Mesolithic, a long and mysterious period covering half of the last 10,000 thousand years. After the end of the Ice Age, some 12,000 years ago, hunter-gatherer groups continued living in warm climatic conditions, with rising sea levels and ecosystems becoming more like those of the present (see [Table 6.1](#) for an outline chronology and [Figure 6.2](#) for the sites mentioned in the text). New excavations of Mesolithic sites in north-west Europe and reconsideration of older evidence along the Danube Gorges both show that these were not people living hand-to-mouth but groups with sophisticated understandings of their position in the world, including its more spiritual dimensions.

The first farmers enter Europe from Anatolia some 6500 BCE; they are probably related to the inhabitants of Çatalhöyük, whom we met in [Chapter 2](#). In what is present-day Greece, Bulgaria, Romania, Hungary and further east, people lived in mudbrick houses, with subsequent layers built on top of previous ones; over years they formed the mounds known as tells that rose up above the plains. Across the Mediterranean on the mainland and on islands, a great variety of forms of farming arose, with marine foods an important complement near the sea. From the Hungarian Plain, across the loess plains, to western France and Holland, a particular cultural form developed, with people living in wooden longhouses, probably with people at one end and animals at the other. The first farmers arrived in Britain around 4200 BCE, bringing with them domesticated wheat, barley, cows, sheep and pigs. In Britain and Ireland more pastoralist ways of life were created, which possibly shared some continuity with earlier mobile Mesolithic groups. In Scandinavia hunter-gatherer lifestyles persisted, with

the last groups adopting farming around 2500 BCE and people in the north developing mobile lifestyles, often using reindeer, some of which still exist in the present. All these groups developed varied magical practices as central elements of their cultural life, as we will see.

Date	Archaeological period	Events and processes
50,000– 10,000 BCE	Upper Palaeolithic ¹	Hunter-gatherers living at the height of the Last Glaciation – see Chapter 2 . Great range of magical practices
10,000– 6000/3000 BCE	Mesolithic (end depends on the date of first farmers)	Hunter-gatherers living after global warming. Evidence of rich magical practices from deer frontlets in Star Carr to echoes between people, houses and landscapes at Lepenski Vir. Start of deliberate deposit of objects
6000/3000– 3500/2000 BCE	Neolithic (end depends on date of first metal)	Domesticated plants and animals, settled life. The development of deliberate deposit of objects – stone axes, etc. Magical practices connected to the house, the human body and plants. Building of large burial and henge monuments
3500/2000– 1200/800 BCE	Bronze Age (the coming of bronze differs across Europe)	Much continuity from the Neolithic, with addition of metal. Largest henge monuments, e.g., Stonehenge. Deposit of large amounts of bronze and human bodies in land and water. Start of Classical Greece at the end of this period

Date	Archaeological period	Events and processes
1200/800– 43 CE	Iron Age (the start of the use of iron varies a lot, as did the dates of Roman incursions)	Rising population, some urbanization. Roman unification of Italy. Development of Classical and Celtic art, the latter playing with relations between people, animals and spirit figures
120 BCE– 410 CE	Roman Period in Mediterranean and north-west (see Chapter 7)	Expansion of Roman Empire created hybrid cultures and development of conjoined forms such as magic in art or things like cursing, where magic also had new links to religion

Table 6.1. The main prehistoric periods in Europe through to the Roman Empire. Dates for farming and first metals are earliest in south-eastern Europe and latest in the north-west.

Our survey of magic will take us through to the Iron Age, ending around 2,000 years ago. Mesolithic groups were probably mainly the descendants of Ice Age hunters, and we can see strands of continuity from earlier ways of life in mobile lifestyles, small populations and a general equality within the group. Mesolithic groups also set up some of the conditions of life for subsequent incoming farmers. In the twentieth century Mesolithic groups were seen as small, passive and primitive groups skulking in the dark and unending primeval forests. These days we emphasize the dynamism of both the broader landscape and the human groups within it. Such an emphasis comes in part from occasional well-preserved archaeological sites excavated and analysed to the highest of contemporary standards.



Figure 6.2. Map of topography and sites in Europe mentioned in the text.

Mesolithic Magic in Britain and north-western Europe

The site of Star Carr in North Yorkshire, around 8 km south of Scarborough, demonstrates remarkable preservation and has seen a long history of work, most recently through the excellent large-scale survey and excavation by a team run by Nicky Milner, Chantal Conneller and Barry Taylor (2003–15).² Initial excavations, by Grahame Clark between 1949 and 1951, uncovered a settlement on the banks of what was Lake Flixton, but is now filled with sediment.³ Buried beneath thick layers of peat that encouraged waterlogging, wooden structures were discovered, as well as well-preserved assemblages of bone and antler. These included the famous red deer skulls complete with antlers, which had been modified to allow them to be worn presumably on the head of a human being (Figure 6.3). A total of thirty-three antler frontlets have now been found. Clark thought he had excavated the whole of the settlement at Star Carr and saw this as a seasonally occupied camp, part of a system of temporary settlements by

groups that moved across the landscape during the year. He created a picture of a hand-to-mouth existence, somewhat contradicted by the evidence for ritual on the site, which was inevitably compared to recent Siberian shamanism. The well-known twentieth-century archaeologist Mortimer Wheeler made a judgement that was even more damning, seeing the people at Star Carr to be ‘as squalid a huddle of marsh-ridden food gatherers as the imagination could encompass’.⁴



Figure 6.3. Royal Mail stamp (2017) showing a reconstruction of the antler frontlet from Star Carr, possibly worn for ceremonial purposes.

Over the years, conditions of preservation have become poorer, so that now organics and bone are not as well preserved as in the middle of twentieth century when Clark excavated, due to a greater acidity of the soil for reasons that are poorly understood. Nevertheless, recent work has recovered some remarkable finds, modifying Clark's conclusions in significant ways. We now know that Clark's excavations uncovered an especially abundant area of the site, but he in fact looked at one episode and

area of deposition within a much more complex set of remains. We can now see, with the help of 233 radiocarbon dates from the site, that Mesolithic groups arrived on the lake-shore around 9300 BCE (there are traces of Late Ice Age activity, including some woodworking from around 400 years earlier).⁵ At this time Britain was still connected to the Continent – the sea level was lower when so much more of the Earth's water was ice – and Star Carr sat in a landscape that continued out on to the plains now inundated by the North Sea ([Figure 6.4](#)). People put brushwood down on the edge of the lake, with another area of small pieces of wood, interspersed with bone, stone and other materials. There was also settlement on dry land, which inevitably has less good preservation. Over many human generations, the dry-land area saw rhythms of stone tool-making, probably around hearths, the butchering of animals, and the working of wood and other plant materials.

This was a group of people not focused solely on survival, but rather working out their relationships with the spirits of place, as well as with those of animals and plants. From early on things were deposited into the lake following formal rules of deposition. The animal bone, mainly from red and roe deer with some wild cattle, did not just derive from animals butchered in the most efficient manner. Whole parts of animals, such as legs, were laid in the shallow water, and on occasion complete animal carcasses were also placed into the water. Interpretation is tricky, but these look like offerings, maybe as an act of reciprocity with the productive powers of the landscape. Bone was worked into tools, big and small, ranging from needles used for making skin clothing to wedges for splitting timbers. Worked wood may also have been carefully deposited, and, while stone tool-working took place on dry land, well-used stone tools were deposited in the water – possibly artefacts that had a significant history connecting them to people, animals and plants. In addition, shale and amber were found, the former from some 40 km away, with amber coming from the shores of what is presently the Baltic. One flat piece of shale had a hole bored in one corner, presumably to hang round someone's neck, across which was incised a series of lines with so-called barbs on them, a decoration that is only otherwise found in Denmark at this time, a long walk to the east.



Figure 6.4. North-western Europe at the Last Glacial Maximum – the white areas indicate remaining ice sheets.

Along the shore of the lake was a well-carpen-tered and constructed wooden platform or trackway at least 30 m long. The platform, made from split and smoothed planks, represents the earliest evidence for carpentry in Northern Europe. The earlier scatter of small pieces of wood and rubbish were on the same alignment as the later wooden platform, perhaps demonstrating that some importance lay in this direction, but in any case showing that later activities followed earlier ones. A paddle suggests that boats were used, for which no direct evidence has yet been found. The reed beds along the lakeside had been repeatedly burned to allow better access to the lake, attesting to how planned and sophisticated life here was. As if that were not enough, evidence for Britain's oldest house, dating to around 9000 BCE, has been uncovered, together with indications of rebuilding, as the posts around a hollow had been replaced a number of times. The site seems to have gone out of use around 8500 BCE.

Despite the house and platform, people may not have lived in Star Carr permanently, although we can definitely say that they returned over many human generations. On each return people would have encountered the traces of past activities, either their own or others. Complicated histories built up over the 800-year use of the site, and the shores of the lake acquired a sets of values and resonances of their own, partly to do with the water and land themselves, but also related to what people had done there. The marshy edge of the lake, that transition from earth to water, was not only enhanced through a platform, but also through a series of carefully placed deposits in the lake, which presage those found much later in Britain and across Western Europe.

Instead of Wheeler's squalid, marsh-ridden hunter-gatherers, we can now imagine well-made houses and platforms along the lake, canoes tied to posts and probably also nets, baskets and other gear stacked or stored waiting for use, as people come and go. At the right moment – which might be determined by the movement of the Moon and Sun, or by the kill of an important animal, or when people returned to the site – we can imagine that people walked into the shallow waters carrying the hind quarters of a deer or the whole of one and placing it with care into the lake. Stone for tools, worked wood and probably plants were all also used as offerings to the spirits of the landscape. People did not just take, but were involved in forms of reciprocity with the spirits of the land. It may be that each material and living thing had its own sets of protocols, words to be said or forms of respect. Our imagination can take us further to witness special occasions when people wore deer frontlets and possibly also deer skins, perhaps trying to imitate the movement of the creatures, probably also accompanied by stories, songs and music, the whole group participating or watching.

In creating such a picture it is easy to conjure up the romantic opposite of Wheeler's hunter-gatherer squalor. But life in these early times was difficult: human groups regularly encountered bears and wolves, they fought with each other, and died quickly from disease. The spirits of land and water could turn nasty; and it is probable that some malign spirits were to be found in particular places on land or in the water. Once again magical practices were not a luxury, but part of how people coped. It was important to be a deer on occasions, for reasons we cannot now fully know, and this was not because imitating deer made them easier to hunt, but rather because it conveyed some understanding or closeness that was intellectually and

emotionally important. The world was an ongoing series of mysteries with which people struggled both physically and spiritually: these were magical landscapes that people navigated with care. It is likely that appropriate behaviour was as necessary in addressing the spirit world as it was when dealing with a bear or wild pig. Their everyday life would have been shot through with magical observances and protocols.

Across the vast Northern European plain are scattered indications of human occupation contemporary with Star Carr. Some show the intensity of use of a particular locale, with evidence of sophisticated lifestyles and widespread connections through the movement of materials. No site or area has been as well investigated as Star Carr, but particularly intriguing in comparison to Star Carr are the two antler frontlets from the site of Bedburg-Königshoven in the Rhineland, some 20 km south of present-day Mönchengladbach. Together with the abundant remains of aurochs, stone tools and indications of domestic activities, two antler frontlets were found on the edge of an old ox-bow lake, again at the juncture of land and water. Right in the north of Germany, near the present-day Baltic Sea, is the site of Hohen Viecheln, disturbed by a sixteenth-century drainage channel and still only partially excavated. The intense Early Mesolithic occupation was on the former shore of Lake Schwerin. This is a complex site, poorly understood, with several phases of occupation, but is characterized by the profusion of its Mesolithic finds: over 10,500 flint tools and 350 artefacts of bone and antler, some of considerable sophistication. Of interest here is another antler frontlet directly comparable to those at Star Carr.

The occurrence of antler-frontlet headpieces in a triangle of sites hundreds of kilometres from one another provides a small but clear indication that similar practices were followed across the European plain at this time. Across this enormous land-mass, which included a large area of what is now the North Sea, with its now unknown topography of plains, rivers and swamps, the people in these sites were in contact with each other. The people in these sites acted as some super-group in ways we do not understand. Quite what the antler frontlets were used for has been the subject of some discussion, with possibilities ranging from the pragmatic explanation of Grahame Clark – people disguised themselves as deer while hunting – to the shamanistic – these were used in shamanistic practices and rituals. Neither is likely to be straightforwardly true, and the contrast between the pragmatic and ritual is in any case an artificial one of our own

making, not something that would make sense to Early Mesolithic groups. Human groups had close relationships with deer, and it is likely that they had strict rules in dealing with this and other species, as indicated by the careful deposit of parts or near-whole carcasses on the lake-edge at Star Carr and probably at other sites. A visitor from Star Carr to these German sites, had they been able to walk and boat that far, would have nodded their head in recognition at ceremonies where deer frontlets were used, perhaps also being able to join in the ceremony through known actions and songs.

The world immediately after the ice is strange and unimaginable to us. To understand this world we need not just high-quality excavation, analysis and synthesis, but also some imaginative projection that risks either being too imaginative or staying too rooted in our own common sense. For the earliest inhabitants of Star Carr the Ice Age was likely to have still been a folk memory. The massive changes brought about through the retreat of the ice, the vanishing of the largest Ice Age animals and then the new arrival of trees, grasslands and temperate animal species would all have been discussed and explained in various ways. Such explanations would have been very different from our scientific tracking of global warming, sea-level rise and ecological shifts. Perhaps it was thought that new spirits had entered the land, the Sun had gained novel powers, or cold and darkness had been banished – we cannot know any of this. We can be reasonably sure that these were small human groups spread thinly across the landscape by any later standards, and the balance between human numbers and animal populations would have been more equal.

The Mesolithic Period as we currently define it is immensely long, lasting at least 4,000 years in Britain. Evidence is thin but sometimes striking, as we have seen. Late in the Mesolithic we find a newborn baby laid on a swan's wing in its grave at the cemetery at Vedbæk-Bøgebakken in eastern Denmark, a poignant indication of possible links to a bird that is seen on water, land and in the air, bridging all three elements. Next to the baby is the body of a woman thought to have died in childbirth. A total of twenty-three burials were made at Vedbæk around 6000 BCE, some three millennia after the occupation at Star Carr.

People were immersed in intimate relations with plant and animal species, perhaps seeing some kinship across what we define as species boundaries. They exhibited very considerable physical skill in working planks, knapping stone tools, gathering plants and hunting animals. Such

skills would have been underpinned by deep conceptions of cause and effect, and of cosmology. Rules of correct behaviour towards the world were developed and widely shared and most likely did not involve the divisions between species we see; nor did they emphasize the difference between the animate and the inanimate – the tool animated the hand as much as the hand directed the tool. Two further observations can be made, but are difficult to explain. First, the care in deposition of carcasses and tools probably derives from an ethic of reciprocity. If people took from the world, they should also give back, so that when a deer was killed and eaten some of it was placed in the lake as an acknowledgement to the generative powers of the world, however these were conceived. Secondly, and even more extraordinarily, this ethic of reciprocity and the careful deposition it led to seems to have carried on throughout much of the prehistory and history of north-western Europe, even down into the modern period. It is definitely stretching things to say that the origins of Arthur's sword in the lake lay in the Mesolithic Period, but we can see that for many thousands of years people were interested in what could be put into water (and land), as well as the benefits of such acts.

People become landscape

In one large corner of north-western Mesolithic Europe we can see people exploring links with animals. In our next example, people become part of the land itself. Let us move to the Iron Gates region of the Danube, where the river separates present-day Romania on the north bank from Serbia (and formerly Yugoslavia) on the south. A series of sites is found here, dating between the end of the Ice Age and the start of the Neolithic: roughly between 10,000 and 5500 BCE. The Iron Gorges form a little hotspot of sites within south-east Europe, where the Mesolithic is otherwise hard to find. Ancient factors in the form of abundant supplies of fish and birds from the river combined with food from the land and attracted settlement in the Mesolithic. But our knowledge of these sites is influenced by modern developments, particularly when the Romanian and Yugoslav governments started damming the Danube from the 1960s to 1980s, occasioning archaeological work in advance of this construction that led to the discovery of more than twenty sites with Mesolithic evidence in a relatively small area ([Figure 6.5](#)). In thinking about the evidence from the Iron Gorges, we

will concentrate on another time of profound change: the shift from hunting and gathering to farming, around 6200 BCE. The main site of interest here is that of Lepenski Vir, picked out from others in the area by its combination of domestic structures, graves and sculpture.

Lepenski Vir was a settlement constructed on a terrace a few metres above the Danube on the Serbian side. The settlement is unusual in being composed of a large number of houses, represented archaeologically by elaborate trapezoidal limestone house floors ([Figure 6.6](#) (a)), central stone-lined hearths and numerous carved sandstone boulders, some depicting hybrid human-fish beings ([Figure 6.7](#)). Human burials are also found between the houses. Most of these features are now dated to the Mesolithic/Neolithic transition from c. 6200 to 5900 BCE. This combination of houses and unusual art has occasioned much discussion since the first excavation of Lepenski Vir in the 1970s.

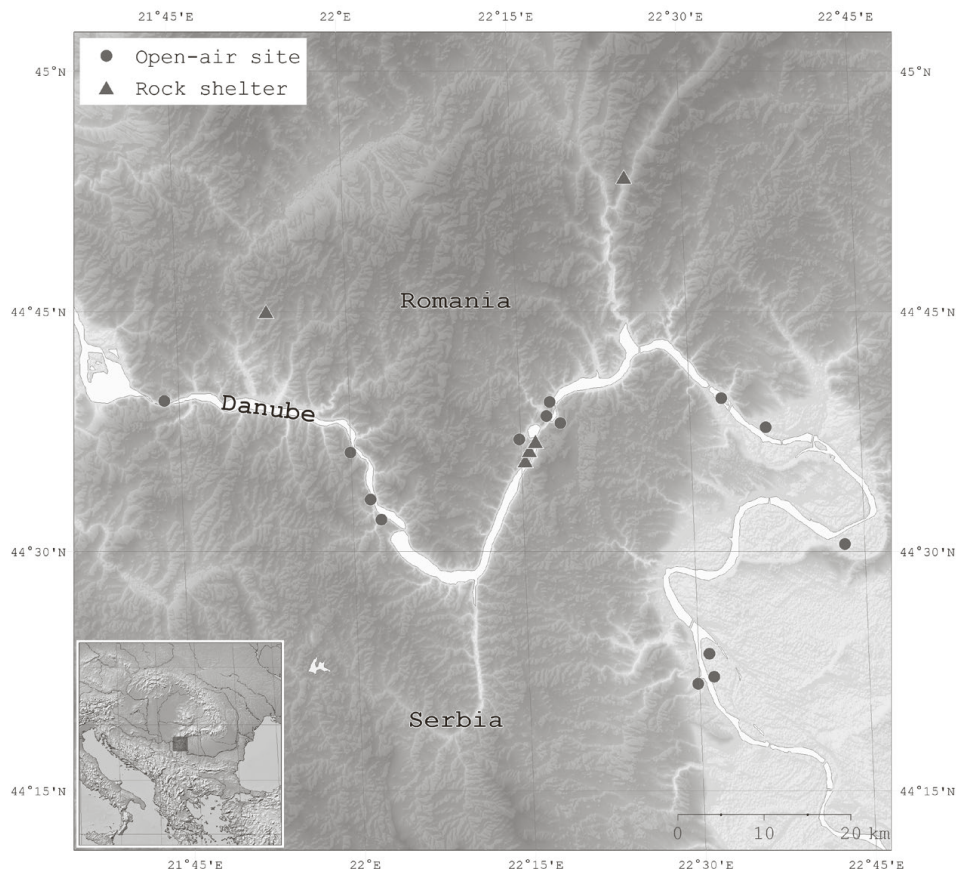


Figure 6.5. The Iron Gorges region of the Danube, showing many of the main Mesolithic sites.

The houses are of a very standard size and shape, the latter displaying distinct geometrical properties. The houses display left–right symmetry around their long axis, one reinforced by their central hearth, and have a curved front wall. The house shape has properties of the Golden Section.⁶ Their trapezoidal form is based on a sector of a circle with a subtended angle of 60 degrees, so that the length of the side walls was in a 1:3 ratio with the length of the back wall and a 1:4 ratio with the front wall. This produces a series of isosceles triangles, which, when bisected, create new triangles with the same properties as the larger one (see [Figure 6.6 \(b\)](#)). Triangulation would have been needed to lay out each house. Houses were built at Lepenski Vir over a 700-year period, with these ratios maintained throughout. On the opposite side of the Danube from Lepenski Vir is the striking shape of Mount Treskavec, which also displays a trapezoidal structure, found in less marked form in other peaks along the Iron Gorges. It is probable that the shapes of houses mimic that of the mountain. Furthermore, one of the burials is laid on its back with legs folded out to echo the shape and ratios of the mountain and houses ([Figure 6.6 \(c\)](#)).⁷ Such links between the landscape and the houses people inhabited were obviously important, to such a degree that they employed mathematical means to create resonances between them. People may not have been considered separate from the land from which they derived and lived in. The separations we make between what is human and what is not did not obtain 8,000 years ago in the Iron Gorges.

Further striking aspects of mixing up humans with other entities are the carved boulders found across the settlement ([Figure 6.7](#)). These look to our eyes like some combination of people and fish. Such a combination is not impossible, given the numbers of fish bones found at the site; the high consumption of fish is reinforced by the chemical analysis of human bone. Indeed, the site is next to a whirlpool in the river, which churns sediment, creating rich waters for fish and for those engaged in fishing. What red deer were to the people of north-west Europe, fish may have been to the Mesolithic dwellers of the Danube: their most significant other and therefore possibly not other at all. The carved boulders play with human and fish characteristics, which might then engage with the tension between the fluid and the solid.

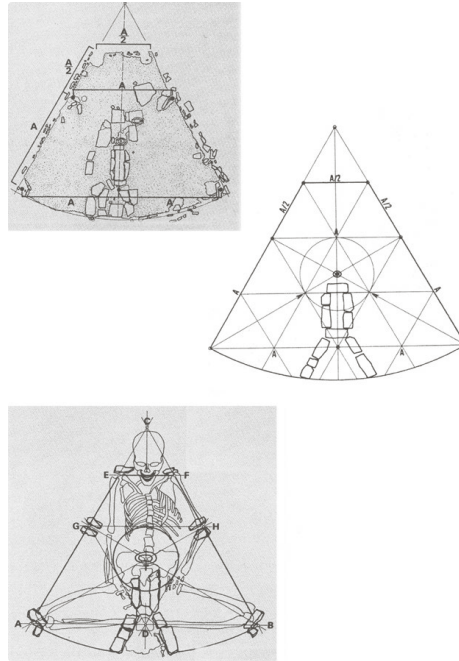


Figure 6.6. (a) The plan of a trapezoidal-shaped house. (b) Rendered as a geometrical form. (c) Echoed by the burial of a human body with legs bent.

One last aspect of the site is worth bearing in mind. One of the big divides that has been made in European prehistory (and elsewhere) is between the mobile world of hunter-gatherers and the settled life of farmers. This contrast was seen as significant partly because of the low opinion Grahame Clark and others had of hunter-gatherer lives – that they were nasty, brutish and short compared with those of farmers more in control of the world around them. As we have seen, Mesolithic hunter-gatherers lived in a very sophisticated relation with their world, easily able to thrive in these newly abundant habitats and exploring their situation through philosophical and magical means. It should not be surprising, then, that there is some continuity in places between hunter-gatherer and farming lifestyles. This is the case in Lepenski Vir. The earliest houses and burials are devoid of things like pottery, whereas later ones have evidence of incoming Starčevo ceramics, the earliest Neolithic culture in this region, but they keep the same forms of houses and burials. The inescapable conclusion is that domesticated plants and animals, pottery and so on were gradually adopted by a population that had lived in this landscape for many human generations, although they may also have been joined by migrants from

elsewhere. The coming of farming, in such instances at least, saw the incorporation of new forms into older lives and was by no means a revolutionary development. As younger generations made the slow shift to farming, older cosmologies were not immediately given up, and they maintained their links between houses and mountains, to the Danube and to the hybrid fish/humans embodied in the sculptures of their ancestors in Lepenski Vir.



Figure 6.7. Sculpture from Lepenski Vir.

Farming magic

Over the centuries farming did change lives profoundly, and it is to the magic of this emerging Neolithic world that we now move, although careful deposits of artefacts, bones and so on were found in both periods. In contrast to the views of an earlier generation of archaeologists, the Mesolithic was a dynamic period that set some of the conditions of life for subsequent Neolithic groups. A marked change at the start of the Neolithic wherever it occurs is that archaeological evidence leaps into focus, like a photograph suddenly developing. Whereas the areas outside the Iron Gorges are devoid of Mesolithic archaeology, Starčevo sites are relatively abundant, as are related forms elsewhere. European Neolithic sites are first found around 6800 BCE in Greece, where they show a very marked diversity, some houses built of mudbrick accumulating into tells over the generations; other mudbrick villages replace houses laterally without creating a tell; and yet others are composed of houses with wattle and daub

over wooden frames. Indeed, across Eastern Europe we find a mix of mudbrick and wooden-framed houses forming a combination of tells and flat settlements. Farming was introduced partly by colonists, but these were not people working to a set plan; rather they were experimenting greatly, partly because they combined newly introduced and existing ways of Mesolithic life.

As a contrast, from around 5500 BCE, for the next millennium, great conformity emerges from the Hungarian Plain up to eastern France. Here a striking way of life develops, known as the LinearBandKeramik (a German term describing the linear decoration on pots, often shortened to LBK), where people lived in longhouses and engaged in a farming lifestyle, with the dead buried within the settlement or in separate cemeteries. Since the 1930s large-scale excavations have taken place across Central and Western Europe, providing a great mass of information that indicates definite variety of house form and the manner in which settlements are laid out. In the north-west of mainland Europe, Britain and Ireland other developments are seen: in some areas a more mobile way of life takes shape as people follow animals, returning occasionally to small areas of cereal crops. Here various monumental forms were built, with around 40,000 long barrows still remaining from the Early Neolithic in south-eastern and northern Spain, northern and western France, Britain and Ireland, and southern Scandinavia. The oldest barrows, built around 4500 BCE, are found in the south and west, later spreading north. Long barrows bear some resemblance to LBK longhouses and are broadly complementary in their distribution as well as in date – long barrows started to be built as longhouses became less common. Furthermore, although all were constructed partly of earth, there is a marked variety of form otherwise, with stone passages and chambers found in some, wooden structures underlying others, with many excavated examples showing various constructions at different times. A good number, but by no means all, contain the remains of the dead. Other Early Neolithic monuments include so-called causewayed enclosures that are variants of a circular shape, constructed of ditches with breaks in them (the breaks being the causeways) and with varieties of evidence internally.

Ritual and magic developed as people wrestled with issues the new lifestyle threw up, due to a more densely settled landscape (although still sparsely populated by later standards), a greater emphasis on living in houses and villages in many areas, relationships with new, domesticated

plants and animals with their own novel requirements, and sometimes dwelling more closely to the dead. Houses were central to life in many places, and it is no surprise that play was made with them, often exploring the links between the house and the human body. In areas of south-eastern Europe models of houses survive, and these are given human features, such as heads, arms, stomachs, breasts and hair, in Macedonia and other areas of the Balkans. Here in Macedonia people were buried inside houses or nearby, and most of those buried were women. Where the house models have indications of gender, all the attributes are female (although it could be that those lacking indications of gender were considered male or children). Perhaps the house was female in some way. The evidence is patchy, but it seems particularly strong connections were made between female bodies and the house. Perhaps the house gave birth to, and nurtured, the group. The house models have traces of fire, so may have been used in rituals to remember individual or generalized ancestors, whose names and identities had been forgotten but who were honoured as progenitors of the group.⁸ In the French Jura, during the later Neolithic, from 3200 to 3000 BCE, it has been argued that house roofs resembled the hat styles then in use: rows of houses looked like lines of people facing each other. At the site of Ludwigshafen four pairs of breasts modelled in clay and also painted with dots were found. These might have come from a special structure within the house. Further north in Germany similar model breasts have been found.⁹ It has been argued that in the Paris Basin, LBK houses might have lasted between twenty and forty years before being replaced, thus having a lifespan similar to that of the average person at the time.

Many people now are attached to their houses, but it is possible that among early farming communities houses and people were impossible to distinguish: houses were people. Houses were living entities, perhaps seen as having a birth, a mature period and a death. The group came together to build a house and then the house stayed together to shape the group. Rather than being a passive form of shelter or element of property, houses might have had personalities, will and intention just as much as, although perhaps in a different fashion from, the people who lived in them. In an active universe, intimate social spaces were part of the group and integral to its history. Houses may well have been named, as we know later Medieval halls to have been, and, of course, from these later periods we know that the term 'House of ...' applies to the human group. It is not surprising, then,

that the form of the longhouse may have provided inspiration for long mounds in which the human dead were often buried for a thousand years or more after 4500 BCE.

Long mounds or barrows were constructed in a plethora of ways. Some had initial wooden structures resembling a house, which were then covered with a mound. The most striking have stone passages down their central axis, with chambers off to the sides in which human bones are laid. We should not bring our assumptions of death and burial to these structures, however. In most cases people were not buried whole and then left. Rather, some barrows were left open, with people and animals going in and out, with the result that human bones circulated near and far. Such a circulation might have been in part deliberate, ensuring that the presence of various dead members of society was an active one. Many thousands of years later, in the Iron Age, which begins about 800 BCE, in most times and places across Britain burial is still rare, and human bones are mainly found in ones and twos in pits and ditches with other rubbish. We are increasingly aware that the movement of human bones continued into this later period. As archaeologists, we are thinking through what this could mean. It might be that a whole human body was too important to bury at once. We are all made up of relationships of blood, marriage, friendship and obligation, so it is possible that the bones of the dead from the Neolithic until the Iron Age Period were separated and sent back to their living descendants in the kinship group, acknowledging and discharging the debts one group owed another, for instance due to the exchange of people in marriage. In such a case the person might not be really dead until all relationships had been acknowledged and dealt with in a satisfactory manner. The dead were still members of society until their bodies were laid to rest. After such long exchanges it is possible that people became generalized ancestors.

Long barrows worked with other relationships on occasions in dramatic fashion. Some of the most spectacular tombs known from north-western Europe are found in the Boyne Valley in Ireland, not far west of Drogheda, including Dowth, Knowth and Newgrange. These combine complex constructions with rock art based on circular motifs that may have been best appreciated in a state of mind alteration. Newgrange was built around 3200 BCE and is circular, being roughly 80 m in diameter ([Figure 6.8](#)). The outer face of the mound is covered in white quartz, making it visible for miles, and around its base are ninety-seven kerb stones, which included the highly

decorated Entrance Stone. The mound weighs about 200,000 tonnes and covers a 19-m-long stone-built passage leading to a star-shaped chamber, off which are three recesses, covered by a 6-m-high corbelled roof. In each of the three recesses are basin-shaped stones that contained the remains of human bodies. Excavation revealed parts of five individuals, mainly cremated, together with polished stone balls, bone beads and chalk. It is likely that these were not the total number of individuals ever placed in the grave, but rather those were the people in there when the tomb was finally sealed.

Above the passage entrance is a 'roof box'. At dawn, on 21 December and for a few days before and after, the Sun shines through this roof box; it slowly makes its way up the chamber until it strikes a stone in the back. The combination of the massiveness of the construction at Newgrange and the precision of the alignment indicates a determination to recognize the movement of the Sun on the shortest day of the year and the powers of the regeneration of the Earth thereafter. Now large numbers of people gather at dawn at Newgrange on the Winter Solstice to watch this event, an experience marred only by the rarity of sunshine at this time of year. Some other monumental constructions also have solar alignments: the great passage grave of Maes Howe in the Orkneys, which, like Newgrange, is a monumental and skilled stone construction and also has a passage orientated on the Winter Solstice; nearby Barnhouse is constructed on an alignment with the Summer Solstice. In the Early Bronze Age, around 2000 BCE, a stone circle was constructed around Newgrange, the purpose of which is likely also to have been astronomical or astrological, indicating some continuing interest in the heavens over at least 1,200 years on this spot.

People in the later Neolithic, around 3000 BCE, were linking the movement of bodies in the sky with the cycle of the year and that of human life and death. It is most likely that human life was linked in some way to broader cosmological cycles, so that humans and the rest of the phenomenal world were viewed as interwoven. Also, we have seen that in Mesopotamia and China a sophisticated knowledge of astronomy (and probably astrology) was underpinned by mathematics; in north-western Europe it is likely that a considerable mathematical knowledge existed: an understanding of angles and movement would have been necessary for creating a link between constructions on the ground and movements in the

sky. But all this knowledge would have been developed and transmitted orally or by mnemonic devices that are lost.



Figure 6.8. Newgrange, Ireland, showing quartz facing and the entranceway into the passage. The mound has been recently and controversially rebuilt, raising questions as to whether it looked anything like this in prehistory.

In 1999 an illegal metal detectorist found a bronze disc with gold leaf that came to archaeological attention in 2002 ([Figure 6.9](#)). Because of uncertainties surrounding the nature of the discovery, the authenticity of the disc is still controversial to some; hyperbolic claims have been made that this is the oldest depiction of the heavens in the world. If genuine, the disc dates to around 1600 BCE and probably stems from the site of the Mittelberg, a defended Bronze Age hilltop near Nebra in Saxony-Anhalt in Germany, where it may have been buried in a pit with a cache of other bronzes (when eventually arrested two metal detectorists assisted the police with the circumstances of the discovery, leading archaeologists to excavate this pit). Against the green patina of the bronze disc, which is 32 cm in diameter, a depiction of the Sun, Moon and stars stands out in gold leaf. A set of seven stars might represent the Pleiades, and the two arcs of gold leaf could be indications of the arcs of movement of some body or bodies. It is

likely that the Nebra Disc encodes knowledge of celestial positions and movements, acting as a memory prompt or a means of discussing the movements of bodies across the sky. (We will come back to Bronze Age cosmologies below.) As such, the Nebra Disc may have been part of a more prevalent set of technologies that have otherwise been lost to us.



Figure 6.9. The Nebra Disc, showing Sun, Moon and stars.

The subject of archaeoastronomy has raised considerable passions over the years, with current researchers, some of whom have astronomical knowledge of their own, claiming they can find indications of sophisticated astronomical knowledge in the layout of stone circles, chambered tombs and other monuments. Sir Fred Hoyle, a distinguished astronomer, thought Stonehenge was an instrument of astronomical calculation of great sophistication. The best known participant in these debates was Alexander Thom, by then a retired and distinguished professor of engineering, who argued that many Neolithic and Bronze Age monuments were set up to observe the night sky. Thom felt he could define an early unit of

measurement used for laying out monuments on the basis of his own observations, which he called the 'megalithic yard' in the predecimal days of the 1950s and 1960s in which he worked. Thom also used his observations to reconstruct a prehistoric calendar with eight festivals across the year on the basis of recurrent orientations in monuments. But Thom made little attempt to link his work to the emerging understanding of Neolithic and Bronze Age society reflected in the work of archaeologists. The archaeological profession in turn was neither mathematically nor astronomically adept enough to appreciate and critique Thom's work on its own terms. Thom also had a difficult relationship with contemporary pagans and other groups who were keen to see indications of an ancient and sophisticated wisdom in Thom's calculations, creating pictures of early druidic figures laying out passage graves and stone circles in which they carried out both complex observations and arcane rites.

Ancient wisdom was also found in so-called ley lines, inspired by Alfred Watkins's *The Old Straight Track*, published in 1925, one of the most influential books on Britain's prehistory ever written. By dint of numerous observations, Watkins thought he could see a network of straight tracks between barrows, tors, straight stretches of lanes and Iron Age hillforts. For Watkins these were tracks of trade and connection across ancient Britain, laid down long before the efficient road network of the Romans. Ley tracks were worked out by a group of specialists, whose surveyors' staffs and geometrical knowledge would have made them appear to possess magical powers. *The Old Straight Track* gained a new life in the 1970s, which would probably have horrified Watkins, who died in 1935. Meanwhile, John Michell's *The View over Atlantis* chimed with the hippy views of 1969, the year of its publication. For Michell ley lines were lines of power criss-crossing the Earth that the ancients could feel and understand, an appreciation that the urban modern world, cut off by science from intuitive forms of knowledge, had lost. Glastonbury in Somerset was for Michell the centre of his network of lines, connecting up the religious sites of ancient Britain into a cosmic grid. The world was moving into the Age of Aquarius, which in an astronomical sense occurs when the Sun rises in front of the constellation of Aquarius; in an astrological sense Aquarius is associated with an expansion of consciousness and a greater seeking of truth. Redemption in the Age of Aquarius necessitated the rediscovery and

reactivation of these ancient powers that might then cleanse the pollutions, physical and spiritual, of the modern world.

If we sprayed straight lines at random across a map of Britain, many would cross ancient sites, given their number in the British landscape, especially if little consideration is given to their various dates or how close lines were to the sites. Consequently, professional archaeologists are sceptical about the original observations made by Watkins of the straight lines and even more so of the use Michell made of them. Nevertheless, both books have shaped the thoughts of poets, novelists and artists working on the British landscape, and much compelling work has derived from these ideas. A broadly romantic interest in the deep past has been fed and sustained by such ideas, and this in itself is very positive. Professional archaeologists apply standards of proof that see flaws in many of the claims made: the differences in interpretation derive both from our understanding of the evidence and from the histories of culture and counter-culture across Europe.¹⁰

Ley lines are totally dismissed by archaeologists, but the profession is also sceptical of many of the claims made about archaeoastronomy, while sympathetic to its overall intent. Pretty well all archaeologists would acknowledge that the presence and movement of astronomical bodies was of considerable importance in prehistoric Europe, as it was across the world. Furthermore, it is clear that very sophisticated forms of knowledge of what we now call astrology and astronomy existed among the peoples of Europe's prehistoric past. We can even make some more positive observations, such as that there seems to be a shift in Britain around 2000 BCE from an interest in the Sun to alignments that more emphasize the Moon. However, the knowledge we have of the past does not allow us at present to reconstruct these forms of knowledge in any detail, and no amount of close measurement and analysis of sites like Stonehenge reveals a clear and believable system of measurement and observation ([Figure 6.10](#)), partly perhaps because what comes down to us now is part of a complex whole, but also because these monuments (and certainly Stonehenge) were built and rebuilt over millennia, with different practices and ideas behind them. Not only would astronomical knowledge have shifted over time, it would have been a subject of debate at any one time. Astronomical knowledge did not just derive from an accepted, traditional body of knowledge.

There were also almost certainly geographical variations in these observations and debates. The sky at night was much the same across Europe, but the people observing it were not. The huge and directed effort that went into the alignment at Newgrange shows that power and astronomy were linked, so it's possible that the group who controlled the movement of the Sun through their monument could control other things too. The Sun, Moon and stars were never neutral to those observing them, but rather powers playing out in the world below, to be controlled and constrained if at all possible. Where there is power, there is subversion, disagreement and debate. Our debates over archaeoastronomy play out power in the world today in a similar manner to debates about the sky in the past, and many of our best known monuments have been subjects of intense debate by a variety of groups within society.

Stonehenge has been consistently linked with magic. In the first written account we have of it, Geoffrey of Monmouth, in the twelfth century, argued that it was a temple constructed by the wizard Merlin, while in the 1740s William Stukeley felt that it was a temple of the Druids. Most insightfully of all, the twentieth-century archaeologist Jacquetta Hawkes wrote that every age gets the Stonehenge it deserves, capturing nicely the constant reinterpretations of the monument, only partly driven by new empirical understandings of it.

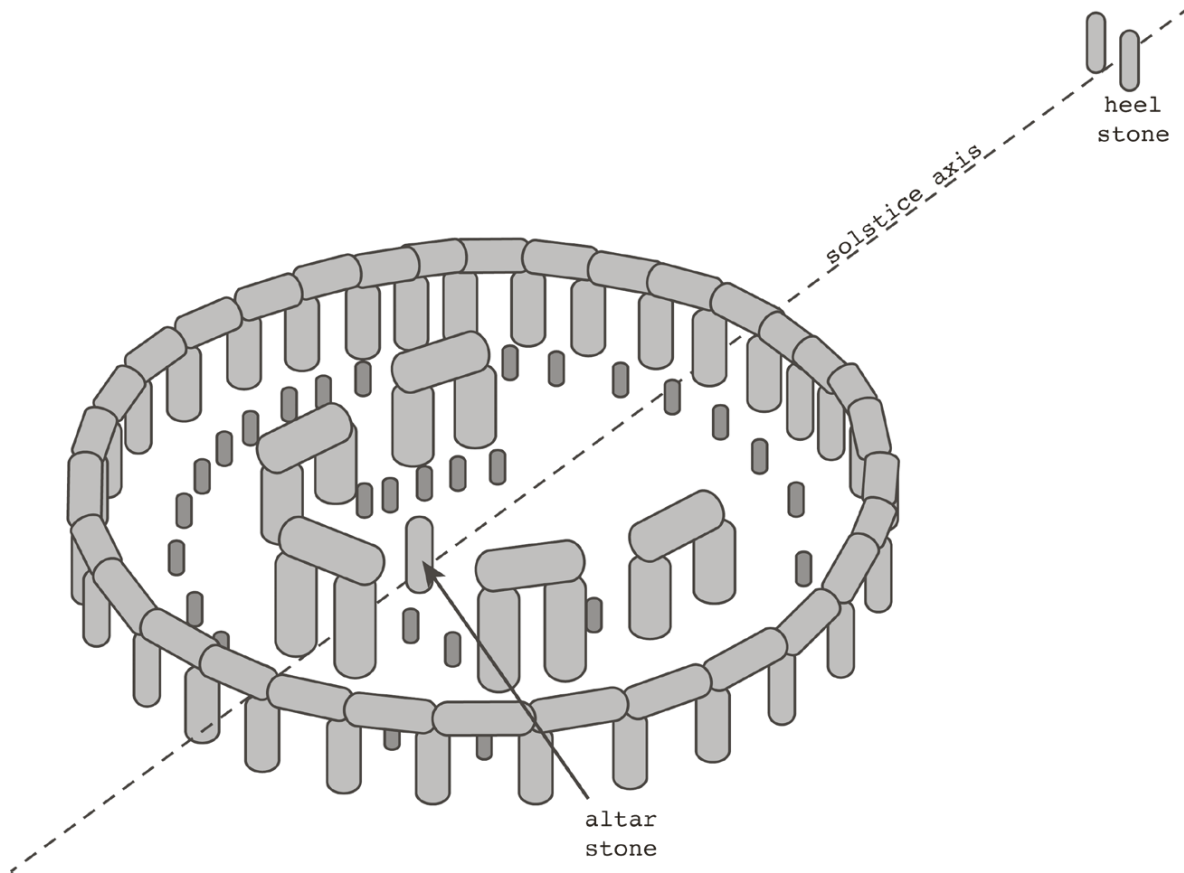


Figure 6.10. A plan of Stonehenge, showing some astronomical alignments.

Stonehenge is the best known of a class of so-called henges, which are circular forms enclosed usually by an external bank and internal ditch; these are common across Britain in the later Neolithic. Work started on Stonehenge around 3000 BCE, initiating a 1,500-year history of construction and reconstruction. Circular forms start in the later Neolithic in Britain, continuing on into the Roman Period. In the Early Bronze Age the huge number of barrows built took a circular form; from the Middle Bronze Age onwards, around 1500 BCE, the most common circular form becomes the house, so that people live in circular space, as opposed to many areas of the Continent, where houses stay rectangular. Stonehenge is a circle and this attribute is important. Circles have important practical advantages in that they are easy to lay out and do not have wasted space in corners. One of Britain's best known archaeologists, Richard Bradley, has pointed out the cosmological implications of a circular form, which mirrors the passage of the Sun throughout the year, becoming a basic metaphor for regular transition and change. At the risk of getting ahead of ourselves, many have

argued that Bronze Age cosmologies saw Sun and Moon as engaged in circular flight, arcing up over the sky during the day in the Sun's case and travelling through an underworld at night to emerge at dawn. The Trundholm Chariot ([Figure 6.11](#)), now in the National Museum of Denmark and probably made around 1400 BCE, as Stonehenge went out of active use, carries a disc made of two convex pieces of bronze, one covered in gold leaf and the opposite one darker in colour, probably representing the day and night phases of the Sun.

It is hard to understand Stonehenge, as the monument itself is complicated and it sits within a ritual landscape of even greater complexity. The monuments in the landscape are linked but were never laid out according to a single plan devised by a single planner. Features have accumulated over many millennia, as human groups have wrestled with important issues of life and death. In recent years much new work has been carried out, shedding light on not just Stonehenge itself, but also Durrington Walls to the north and a newly discovered henge on the River Avon, dubbed Bluestonehenge.¹¹ The earliest evidence is most evocative and puzzling, taking the form of four postholes (under the old car park) with material of Mesolithic date in them, from between 8500 to 7600 BCE, when Star Carr was coming to an end. The pine-wood posts (oak had not colonized Britain at this time) were large, making a striking statement in a landscape from which we now also have evidence of Mesolithic life at Blick Mead, some 2 km to the east, dating between 7600 and 4200 BCE. Three kilometres or so north-west of Stonehenge is the Early Neolithic causewayed camp of Robin Hood's Ball, with further south a section of a cursus. Coursuses are enigmatic monuments formed of parallel banks and ditches joined by rounded ends, creating linear barriers across the landscape, sometimes for many kilometres. Processions could have walked within them, but they formed something of a barrier to anyone crossing their banks and ditches. A larger cursus was constructed contemporary with the early phases of Stonehenge itself, which required considerable work and along which people may well have processed once it was completed.

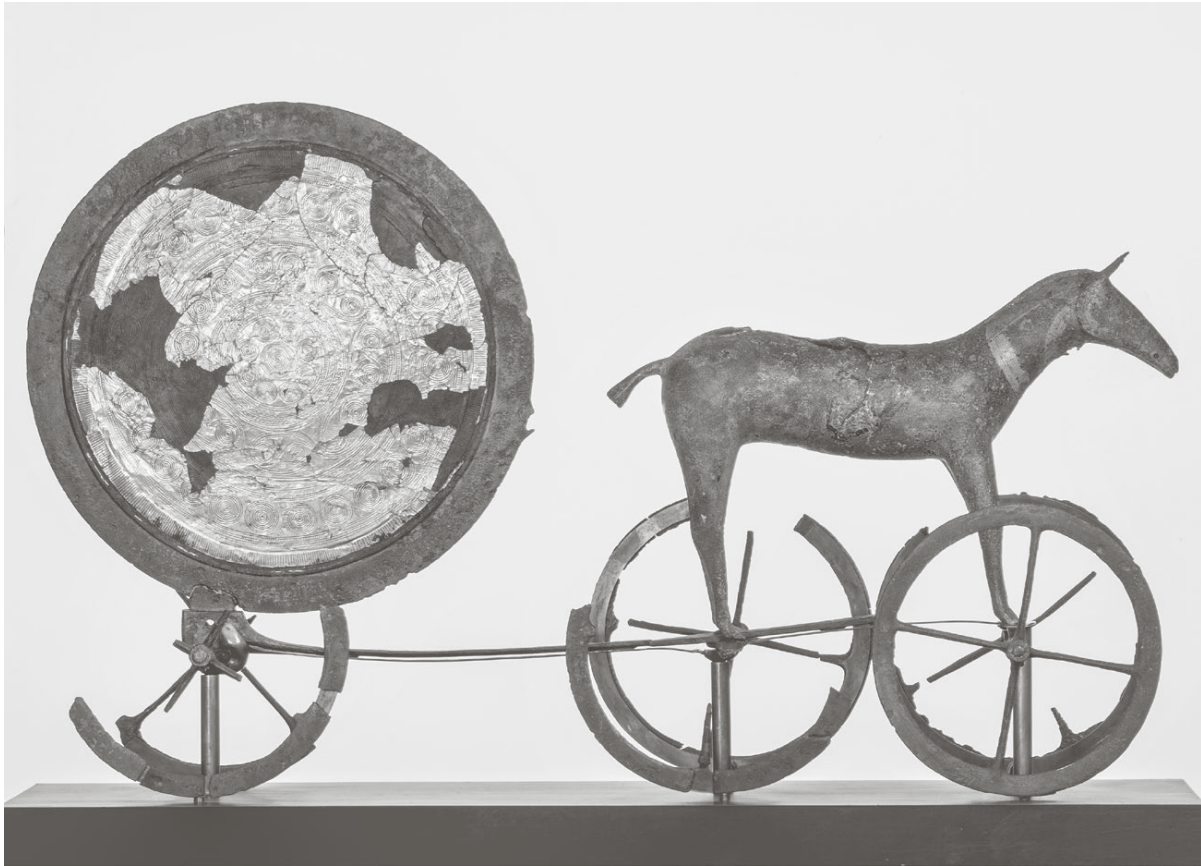


Figure 6.11. The Trundholm Chariot, found in a bog in northern Denmark in 1902, is thought to depict the Sun and its passage across the sky.

One of the main instigators of the recent work, Mike Parker Pearson, working with a Madagascan colleague, Ramilisonina, has attempted to create some structure around interpretations of the broader Stonehenge landscape, taking initial inspiration from Madagascan views that link wood with life and stone with death. Parker Pearson notes that Durrington Walls and Woodhenge to the north-east of Stonehenge both employed mainly wood for their structures, contrasting with the famous stones of Stonehenge; he therefore links the former with the living and the latter with the dead. If correct, this provided a basic structure for the landscape, which echoed the human life cycle, with groups carrying out ceremonies appropriate to the living to the north-east and honouring the dead within Stonehenge itself. The evidence that he and the broader team discovered has in many ways supported this interpretation.

One of the mysteries of Neolithic Britain, particularly southern Britain, is the lack of houses, in comparison with the Continent, where evidence of

domestic structures is striking. We presume people were mobile, living in shelters that leave little archaeological trace. It was a considerable surprise that excavations in the interior of Woodhenge revealed a large village of possibly 1,000 houses in all, most divided into quadrants by pathways and clustered around a central open area; an arc of larger houses was to the west, with a large central one in its own enclosure and with a pair of wooden trilithons (two large uprights with another across their tops) mimicking the large paired stones in the middle of Stonehenge. The smaller houses were 5×5 m, with a central hearth and evidence of supports for wooden furniture. One had a pair of impressions next to the hearth, possibly left by someone's knees as they knelt to tend the hearth. It is most likely that people did not live permanently at Durrington, but came there for ceremonies (there are indications that these might have been mainly at midwinter and midsummer), and also to construct the monuments, including Stonehenge. A number of larger so-called D-shaped houses have now been recognized, which were probably not habitations but meeting houses for use during ceremonies. As well as the houses, there is considerable evidence of feasting, and, although there are around 80,000 animal bones, there are only 300 human ones.

This is in contrast to Stonehenge itself, where no evidence of the living has been found and which probably started as a cremation cemetery – with its sixty-three cremations, known from a variety of excavations, spanning most of the third millennium BCE – initially enclosed by banks and a ditch as well as by a circle of either bluestones or wooden posts just inside the inner bank. Stonehenge was radically reorganized around 2500 BCE, when the central stones were first put in place. The large paired trilithons were erected in a horseshoe shape in the middle, with some of the bluestones from the earliest construction placed in a circle around them. Concentrically beyond these was placed the sarsen circle with joining lintels. The sarsens, as many have noted, echo woodworking techniques in their use of joints, and it is possible that they were a copy in stone of the wooden construction of the so-called South Circle inside Durrington Walls, being of the same size and general arrangement. Also around 2500 BCE the Avenue, running initially north-east, was constructed. The arrangement of the central stones was then played with in detail, and two outer rings of post holes were added before the monument went out of active use around 1500 BCE, a time of major change generally, as we will see below.

All the major monuments – Durrington, Woodhenge and Stonehenge – play with solar movements, especially concerning the midwinter and midsummer dawn and dusk. It is likely, as noted, that this was not just an abstract calendar, but pointed to the times when people gathered for feasts and ceremonies. People's years were structured ceremonially, as much as they were by seasonal availability of food and activities, and they put enormous amounts of effort into their ceremonial life, which must have acted as a means of guaranteeing well-being: the growth cycles of plants, but also of birds and animals, follow the solar year. The recent work has shown that both Durrington Walls and Stonehenge sit at the ends of natural ridges, which by a quirk of geology are aligned according to the solstice. These were then formalized: in the case of Stonehenge by the construction of the parallel banks and ditches of the Avenue; and at Durrington by the metalling of a pathway to aid walking and procession. The movement through this landscape followed the Sun.

There has been long debate on the source of the so-called bluestones so important to Stonehenge – a debate that now appears to have been resolved. The bluestones are actually made up of a range of igneous rocks, the most important of which is a medium-grained hard rock known as a dolerite. Chemical analyses of the Stonehenge bluestones have shown that all varieties probably derive from a range of outcrops in the Preseli Hills of South Wales, some 250 km in a straight-line distance from Salisbury Plain. Even more remarkably, excavations at potential outcrops in the Preseli Hills have found evidence that stones of similar size and shape to the Stonehenge bluestones were quarried; it is possible that the arrangement of the various stone types in Stonehenge echoes the arrangement of outcrops from which they come in the Preseli Hills. Finding the source of the stones solves the practical question of where they came from, but leaves open the question of why these stones were transported so far, at the cost of so much labour. Huge and unresolved speculation still surrounds these issues, although in the practical question of transport it seems that water, both of rivers and sea, was crucial. Tim Darvill and Geoff Wainwright have excavated at Stonehenge itself and in the Preseli Hills, and they argue that the bluestones were seen in prehistory to have healing properties. They argue that burials near Stonehenge, such as the famous 'Amesbury archer', around 2400 BCE, show an unusual level of disease and injury. Darvill and Wainwright also feel they have found evidence of rites of well-being and healing, in the form

of springs, in the Preseli Hills. Some springs have been modified by people and many have rock art nearby. For them, Stonehenge represents a sort of prehistoric Lourdes, where people came in hope of cure.

Stonehenge and other monuments were great ceremonial stage settings that altered over the years, as stone and wood were shifted, new bodies were burned and buried, and pits were dug. People walked to such social theatres, sometimes in processions and sometimes singly, so that the anticipation of approach fed into the action when it happened. Nor were humans the only actors in these dramas. Large numbers of animals were involved in sacrifice and feasts – and we can still conjure up the smells, sounds, energy and confusion of gathering and killing animals. Trickiest of all for us to grasp is the role stone and wood played, although we know that without these the monuments would have lacked much power. For the Neolithic and Early Bronze Age builders and participants it is quite possible that wood and stone were living presences, able to act and influence people for good or bad. Certainly the effort of bringing stones, sometimes several tonnes in weight, from the Preseli Hills is extraordinary. Powers were attributed to these stones that other, more convenient stones lacked, partly due to their curative properties.

No single explanation can fully encapsulate the reasons why such monuments were built, rebuilt and used. The rival explanations for Stonehenge and the academic heat they sometimes generate are fun and productive, but no one view can be fully right. These are large and complex monuments and landscapes, developing over many human generations, so that by the time of the last work on them, just before 1500 BCE, any memory of the original builders and their intentions would have been long lost. As they do today, various people would have come to these monuments for a great variety of purposes and motives. Having said that, some things are clear. The Stonehenge landscape was one of a small number across Britain and Ireland – including the extraordinary combination of monuments in Orkney and those on the Bend of the Boyne in Ireland, which we saw above – that drew people to them from large areas to celebrate, to feast and to bury the dead. Enormous amounts of skilled effort went into these landscapes, which involved an appreciation of the movement of the Sun, among other celestial bodies, a great range of building techniques of considerable skill, and a negotiation of the important issues of life and death through cosmological means. To talk of pilgrimage is anachronistic, but these

constructions were as impressive in their own ways as the great cathedrals of Medieval Europe and at least as long lived. People's most significant relationships were played out here, and such relationships were not just with other people but with the powers of the universe, plants, animals, wood and stone. These were places of enchantment or dread, playing as they did with transcendent relations with astral bodies that exercised power over people from a distance.

Given the importance of Stonehenge to professional archaeologists and the general public, it is unsurprising that over the years it has been a source of tension between clashing means of understanding and appreciating the monument. Very broadly speaking, such a tension revolved around the contrast between a distanced and academic understanding against a desire to experience the stones and their landscape in a full manner, combining the emotional and the more intellectual. Tensions emerged especially over the annual summer solstice celebration, with the permission for the public to enter the stone circle revoked between 1984 and 2000, when 'managed open access' was granted. This resulted in the so-called Battle of the Beanfield in 1985, when hundreds of celebrants were forcibly removed from the stones by the police. New forms of engagement have emerged, the most inventive of which was a work called *Sacrilege*, a bouncy castle version of Stonehenge by the British artist Jeremy Deller, who also printed a t-shirt with an image of a mouth in which were crooked grey megaliths with the caption 'Stonehenge, English teeth'. At the time of writing English Heritage has created a website in which it is possible to track the movement of the Sun, Moon and some planets through the skies around Stonehenge through the year,¹² a means of exploring astronomical/astrological connections and alignments wherever you are in the world. Archaeologists are less likely to claim now that they are the only group able to understand and interpret Neolithic and other monuments, which is healthy.

Sacrificial landscapes

Let us engage in another moment of imaginative reconstruction. We are standing now in a Late Bronze Age landscape, let us say around 1400 BCE, somewhere in what is today northern Belgium and southern Holland. Looking around, you will see that this is an orderly landscape of fields with their crops, woods, rivers and bogs, dotted with small settlements of

longhouses and cemeteries nearby. The houses had enclosures with animals and also stores of food, wood, straw and a range of items such as are useful to any well-run farming economy. You can see well-dressed people going about their daily activities: sporting a variety of hairstyles, they have well-made woven clothes held together with bronze pins; and they carry axes, sickles and other tools in the hand, or hang them from their belts. Some may have weapons, such as swords or spears. If you were able to stay for longer and especially if you had started to learn the language (we do not now know what their language was), it would become obvious that these were societies with strong sets of rules.

You would observe that when a man died, the weapons he owned – mainly a spear and a sword – would not have gone with him into the grave, although other personal items, like sickles or ornaments, might have. Weapons were carefully placed in water: in rivers, streams and bogs. Very long residence would have revealed that every generation or so a settlement (or maybe a combination of settlements) would have taken a larger number of weapons, kept after people's deaths, and thrown them into the water at the point where a smaller river joins a larger one. Presumably such a large act by the whole community would have been accompanied by feasting, songs and discussions of the people who had died, who were now ancestor figures, perhaps connected to water and its life-giving properties in some way. It may also be that the weapons were talked about, including the fights they took part in, as well as the degree to which they helped or betrayed their owners; it may not just have been Excalibur that had a name, although names of Bronze Age objects are long lost to us. Men's and women's items had their own parts of the landscape where they should be placed, and quite possibly their own sets of protocols. The life course of individuals was structured around spiritual needs as much as physical necessities.

The Bronze Age runs from around 2000 to 800 BCE across north-western Europe. During this long period there is a broad pattern to the manner in which things were deposited, identified some years ago by Richard Bradley,¹³ in which various means of disposing of things, whether in water, in graves or on dry land in hoards, seem to be linked. All over north-western Europe during the Bronze Age people were placing items in rivers, bogs and on dry land, although the details of what they did and how they did it varied from place to place. We now know that traditions of making offerings were already ancient, going back to Star Carr and the Mesolithic,

but they also went forward into the Medieval world of Excalibur. We cannot make any direct comparison between the Medieval world and that of thousands of years earlier, but Medieval accounts can help us to question the things we take for granted, such as those in the Bronze and Iron Ages, our focus here. Broadly speaking, when more things are placed in graves, fewer items are thrown into rivers and bogs. The existence of this pattern shows active human choice and engagement in how things are thrown away, which cannot be seen as accidental loss in the main.

Transactions with the spirits of place through the giving of objects can be understood through the Latin phrase *Do ut des* – ‘I give that you might give.’ If a spirit, god or power is nourished or honoured appropriately, it is expected that they will return the favour by maintaining the fertility of the land or of people, or by helping to guarantee general well-being. Gift exchange is said to revolve around three obligations: the obligation to give, the obligation to receive and the obligation to repay. If people do not give, no relationship can happen; the refusal to take a gift is the equivalent of refusing the relationship, and once something has been received a form of repayment deemed socially acceptable is absolutely necessary. Moreover, gifts to powerful forces must be an important sacrifice by those giving them; trivial things that will not be missed are not enough. It seems reasonable to conclude that things like metalwork or parts of human bodies deposited in the right places and with due care were gifts to the powers of the world, however these were conceived. All bronze in the southern Netherlands was imported, either from Central Europe or from the Atlantic seaboard, earlier on as finished articles and later through importing the components of bronze and casting them locally (bronze is an alloy, the major ingredient of which is copper, with smaller amounts of tin or lead – none of these metals occurs naturally in the Low Countries). The exotic source of bronze qualified it as an important gift, especially when it was formed into objects of power.

There was a structure to deposits in the southern Netherlands, with sickles and local ornaments found in settlements and in graves; streams, marshes and bogs received spearheads, axes and sickles; major rivers were given swords, sickles, spears, axes and personal ornaments made outside the region. Particular parts of marshes were chosen for repeated offerings: people remembered which parts of the marsh to return to and what to give – the brown waters of the marsh immediately closed over anything thrown

into it, leaving no trace for those standing on its edge. My reconstruction here is based on the work of David Fontijn,¹⁴ who has analysed the bronzes (sickles, swords, axes, spears and ornaments) in the northern area of Belgium and the south of Holland (the area he calls the southern Netherlands). This area is bordered by the River Demer in the south, as it flows west into the Scheldt; and then the River Meuse to the east and north, as it flows north across the area, before turning west into the North Sea. The southern Netherlands not only has many bronze objects from bogs, rivers, graves and settlements but also large-scale excavations of Bronze Age sites, providing fine detail of life between 4000 and 2500 years ago. The central area described by these rivers is a sand plateau, but the main features of the region are rivers, swamps and bogs, which would have been much more prevalent in the past before modern drainage. Fontijn started his work by making the first comprehensive catalogue of the area of bronzes and where each had been found. He identified a very considerable structure to what was thrown away where. Fontijn estimated that at the very least 50 per cent of the bronzes had been thrown away deliberately and almost certainly more than that.

Various regions have their geographies of deposition, indicating local cultural norms, so that in the Iron Age (800 BCE–43 CE) in southern Britain swords were regularly thrown into rivers, but in northern England and Scotland swords are found only on dry land, mainly in graves. Differing customs are at work here, and those in southern Britain find a later echo in Medieval myths such as that of Excalibur, as we have already seen. The other-worldly qualities of water are important, as is the fact that the sword is named, being a moral player, an active participant in battles and acts of violence.

In southern Holland there appears to have been a taboo against placing weapons in graves, which occurs but very rarely, perhaps indicating that weapons were less a personal possession than held on behalf of the group, to be deposited by that group in a river. This changes in the Early Iron Age, after about 800 BCE, when male graves with weapons do occur more frequently, although often in a different state to those found in rivers. Swords in graves have often been altered, in ways that require considerable skill, such as fashioning them into a circle or folded, concertina-like, which has the side-effect of putting them out of use as swords; bending swords in this way without breaking them requires at least as much skill as making

them in the first place and could have been achieved only by few in the community. Swords in rivers were commonly sharpened to make them even more useful in their new medium. The Late Iron Age, after around 150 BCE, saw still further changes. Swords in the Bronze Age were distributed along river courses, with some concentrations at the junction of a major and minor watercourse. The Late Iron Age saw the first emergence of shrines on land, in which very large numbers of artefacts were placed within defined structures, often together with masses of animal bones, presumably the remains of feasts, and some human bones. This was common in northern France. Such shrines indicate a more structured set of magical practices than those found in the Bronze Age or earlier Iron Age; they may have been linked to more defined gods and in turn have resulted from the influence of the Roman world and its pantheon of gods.

The earlier Iron Age had seen the change that gave the period its name: the introduction of iron and the decline of bronze use. However, although bronze use declined at the end of the Bronze Age, iron did not immediately become common in many areas of north-west Europe. Only after around 400 BCE did the use of iron really take off, at which point bronze also started to become common again, together with items of gold and silver. Iron did not replace bronze, but repositioned it within a suite of materials that was available to Iron Age people. Not only were there changes in the metals used, but the styles of objects shifted dramatically: around 500 BCE a newly complex style of objects emerged that is often termed Celtic art, which was found between Ireland and western Russia, linking the whole of Europe in a common set of styles. Celtic art, I shall argue, like the Scythian art discussed in [Chapter 5](#), derived from an animistic, indeed magical, engagement with the world.

Celtic art: the magic of ambiguity and transformation

A tiny bronze brooch, used to pin clothing, less than 5 cm long, presents us with a combination of at least ten faces of people and animals ([Figure 6.12](#)). Depending on the angle from which you look, different things appear, all of them ambiguously rendered. When the brooch is looked down on from above, at both ends are cartoonish human faces with bulbous eyes and nose; when it is viewed from the side, other creatures with bulbous eyes appear, but they also have a protrusion that could be a trunk or even the lower leg

of a horse ending in a hoof. At either end are two more faces, which have some insect characteristics, to my eyes at least; and, when it is viewed from the bottom, where it is missing its pin, fish-like bodies appear. Correct interpretation of the forms on the brooch is not possible. We approach such objects with our current preconceptions of what shapes and forms might be and cannot know how well these translate into an Iron Age sensorium.

Probably the worst question we could ask of any one motif is ‘What is it?’ The things embodied in the brooch were composite creatures, their elements stylized (in the case of the human faces) with one thing transforming into another, so that straightforward species definitions and depictions are not relevant. The brooch we have just looked at is from the site of Glauberg, Hesse, Germany, and was made around 450 BCE.¹⁵ People all over Central Europe at this time wore brooches of similar types to fasten their cloaks or inner garments. Bronze brooches commonly accompanied the dead into the grave, and their play with forms and species might have had a protective or amuletic aspect, as the dead encountered creatures in their new world. Celtic art is a world of transformation and ambiguity, of shape-shifting, uncertainty and multiple possibilities. The fundamental character of the world may not have been fixed and amenable to objective thought but shifting and influenced by the subjectivity of the observer.

A rather later piece from Britain is the so-called Aylesford Bucket, made from three bands of bronze encircling a wooden body (probably used for holding ale, mead or wine – an imported Roman pan and a jug connected with drinking were found accompanying the bucket in a cremation grave in Aylesford in Kent) ([Figure 6.13](#)). The bucket was carried by a handle that had attachments joining it to the body of the bucket in the form of stylized human faces, which appear to be wearing elaborate headdresses. The top of the three bronze bands has abstract, whirligig decorations interspersed with strange creatures that have the body and legs of a horse but human feet and large, flaring lips ([Figure 6.13](#)). It is not at all clear if these were people dressed as horses or some hybrid horse with human features (and unusual lips). The Aylesford Bucket dates to 75–25 BCE, by which time coins had become common in southern Britain that often employed horse imagery (borrowed ultimately from Greek coins), sometimes depicting horses in a broadly realistic manner but at other times showing horses transformed in various ways.

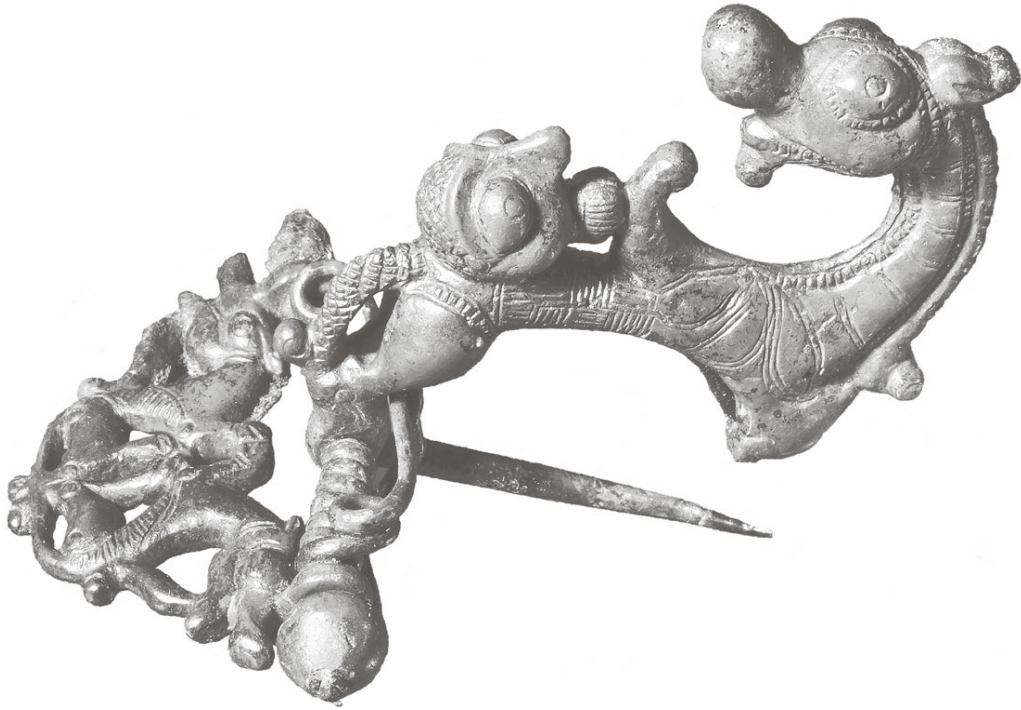


Figure 6.12. The Glauberg Brooch, showing a variety of creatures.

Once again the Iron Age desire was not to distinguish and define different species in a manner that would have pleased Linnaeus but rather to explore interconnections, mixtures and blurrings. It is possible that hybrid creatures had something of the powers of all the entities that made them up, giving them capacities beyond those of any one species. Scientific classification systems hold things separate; Celtic and other forms of art mixed them up. Neither is of itself better or worse, they just pursue and develop diverging cultural and intellectual interests. It is worth noting that by the last century BCE the Roman Empire was moving north into Gaul, and beyond the borders of the empire people were mixing local Iron Age ways with those of the Roman incomers to create a new culture of mixtures. Such a culture continued even after the formal Roman invasion of Britain in 43 CE.



Figure 6.13. A detail of the Aylesford Bucket, showing entities who were part people and part horse.

Other forms of play with boundaries are also found. The so-called pony cap from Torrs, Scotland, is a curved bronze sheet with repoussé decoration (that is, decoration pushed out from the back to raise some elements above the rest) with swirling abstract forms, some of which might resemble birds' heads, and with holes for the pony's ears ([Figure 6.14](#)). Even more striking are the two horns on the front of the cap. These horns were probably made for something else, most likely the yoke of a chariot, and their engraved decoration contrasts with the repoussé of the main cap. Such engraving is very similar to contemporary sword scabbards around 300–200 BCE, perhaps containing hints of a human face. The surviving terminal on one horn is a bird's head. The Torrs Pony Cap is a complicated object, being made from a number of other objects and then subject to repairs. The overall effect of adding the horns might have been to create a pony with echoes of a deer. We saw Siberian instances of such composite horse–deer in [Chapter 5](#).

One last example of ambiguity must stand for many. The Battersea Shield was found on the south bank of the Thames in 1857, having been thrown into the river, probably in the later Iron Age. The Battersea Shield is a spectacular instance of the deposits of metalwork found across north-west Europe from the Bronze Age onwards and would have been a significant offering. [Figure 6.15](#) shows a front view of the shield as a whole, with a detail of the upper portion of the lowest roundel, which might hint at a human face with a nose separating two eyes and the possibility of sweeping moustache below the nose. Following this reading, the person would have been wearing an elaborate helmet or other headgear. Alternatively, this could depict a horned creature of some kind, possibly a stylized deer. It is equally possible that the repoussé and enamel work here threw up a deliberately ambiguous image. Was this a person, a deer or a bit of both? The shield is too small and thin to be very useful as a means of defence; it shows no sign of damage in combat. Possibly its defensive functions were as much cosmological as physical, warding off dangers of an intangible but still real kind. It is always likely that elaborate objects prompted stories, songs and performances, and we might speculate that verbal puns or poetry played with the visual ambiguities in the decorations, in which case the more evocative the decorative forms were, the better. All the potentially rich verbal culture of prehistory is now lost to us, and we can only try to imagine how such objects might have operated as the meeting points of multiple dimensions, meanings and calls to action. We can be sure, however, that people were mixed up in the world in ways that were complicated and confusing to them, that posed puzzles about existence as much as solved them.



Figure 6.14. The Torr's Pony Cap from Torr's, Dumfries and Galloway, Scotland. Not only were the horns probably made for a chariot, it is also possible to see the bronze sheet strips used in repair. The Torr's Pony Cap combines a variety of styles of decoration, which evoke a series of abstract and more figurative impressions. The overall effect might have been to transform a pony into a deer (or some other creature, such as a dragon).



Figure 6.15. The Battersea Shield, one of the most famous items of British Celtic art. Its date is debated, being somewhere between 350 and 50 BCE. The image shows the shield as a whole (it is 77 cm long and 34 cm wide) and made up of pieces of sheet bronze, with three roundels inserted into them decorated with repoussé work and red enamel. The detail is taken from the upper part of the lowest roundel and shows an ambiguous figure, possibly human and possibly a horned animal (or some combination of the two).

Celtic art played with time and space, not just with species distinctions. There is a long tradition across Eurasia, surviving most commonly in rock art, of showing a variety of views of an object or combination of objects at once. From opposite ends of Eurasia, we can see depictions of chariots and carts, first from a deer stone from the Darvi Sum in Mongolia (discussed in [Chapter 5](#)) and secondly from the Early Iron Age burial of Hochdorf near Stuttgart, Germany ([Figure 6.16](#)).

Composite images play with space in that they show us views from different angles. To some degree they also play with time: it would have been impossible to see all of these views at once, so an image combines successive moments of perception into a composite or meta-perception. (If there is any equivalent to this in more recent artistic canons, it is Cubism, with its interests in the temporally based nature of perception.) These two

examples predate Celtic art, but are clear examples of a play with dimensions regularly encountered in it.



Figure 6.16. (top) A Late Bronze or Early Iron Age deer stone from Darvi Sum, Khovd Aimag, in Mongolia, showing the four faces of the deer stone, one of which depicts a chariot both in plan and as if from above; (middle) the back of a couch in the burial at Hochdorf, Germany, showing, among other scenes, a chariot partly in profile and partly from above; (bottom) detail of the chariot.

For instance, the bronze plate with open-work decoration from Cuperly in France, which might have been fixed to the box of a chariot, shows either a two-headed creature (maybe a dragon?) or possibly a single dragon shown in left and right views. We might wonder whether it was ever possible to see a dragon at all, but, if we *were* to see one, it is unlikely we would see both left and right sides at once, although anything might be possible in such an encounter. The Cuperly Bronze Plate contains a double play, both of a creature that may or may not exist and then of a double view that pushes the boundaries of what we can usually perceive. We are in worlds here beyond those of everyday senses and perceptions, where human appreciations of the world are stretched and challenged in magical ways.

Across Europe from roughly 500 BCE so-called Celtic art is found from Ireland to western Russia. Rich decorated items of bronze, gold and silver are not found in the same quantities everywhere, with some areas having abundant finds and others less so. Nor is this art all the same – there are some marked regional variants. But similar sensibilities are everywhere at work, and these may well derive from earlier Bronze Age forms, as shown by rock art. Such modes of depiction are not trying to render the world as we think we perceive it in everyday life, and in this Celtic art contrasts with aspects of Classical art, which also started in Greece around 500 BCE. Greek art provides rigid boundaries between people and their world; Celtic art shows humans immersed in a complex reality, in which humans and horses are not always separate, and horses and deer mix and merge. Nor are many depictions of a singular thing, so that the Early Iron Age brooches regularly combine a whole gamut of creatures, which are individually ambiguous but are often caught in the act of transforming from one thing to another. Celtic art does not combine people, plants and animals, as they were never separated in the first place. Rather, it starts in the middle of things, from within the generative powers of the world, allowing many composite creatures to share attributes and powers. The definition of a species difference since Linnaeus is that two species cannot interbreed and give rise to viable offspring. The absence of interbreeding keeps species separate. It is hard to imagine a late prehistoric Linnaeus, when such boundaries were not sought or seen. Such a mixing of things is counter to the later scientific mind-set of fixed classification and typology. Magical mixing opened up explorations into the generative powers of the world, as well as how people could link to these.

Furthermore, the idea that things can and should be viewed from one perspective, which had grown up in Western art since the Renaissance, was not attractive to people in the Bronze and Iron ages. Perception involved a change of view or the possibility of multiple views, as is brought out not only in depictions of carts and chariots but in many other things, such as animals and humans. Celtic art confronts our current notions of how the world works; it does not confirm them. A comparison of so-called Scythian and Celtic art does not reveal that they were the same at the level of technique and motif, but it does show shared sensibilities through interests in transformation, ambiguity, and plays with dimensions, time and space.

So-called Celtic art is the Westernmost expression of a series of related art forms found from Siberia to the Atlantic seaboard. These are continent-scale magical worlds, to be compared and contrasted with the slowly emerging rational modes of being in the Mediterranean. Together the rational and the magical form two traditions within Eurasian culture, which have coexisted in creative tension with each other for many millennia. The sensibilities of the late prehistoric worlds did not vanish with the coming of the Romans in the West or incursions by urban Persians or Greeks in the East. Traditions were blended, recurred and reconfigured. Rather than vanishing during the Roman Period in Britain, for instance (43–410 CE), Celtic sensibilities ([Figure 6.17](#)) were reworked through Roman provincial culture to provide the inspiration for Early Medieval forms of art, eventually feeding into the world of today through tattoos and knotted decorations.



Figure 6.17. The Desborough Mirror, from the Late Iron Age, with engraved decoration of a type found later in Medieval illuminated manuscripts.

Hybrid cultures in the northern Roman provinces

In north-west Europe formalized religion and religious structures, such as temples and shrines, appeared in the Roman Period for the first time (or some at the very end of the Iron Age, probably due to impulses coming from the Roman world). New temples and shrines employed priests who led more formalized modes of worship. However, careful and deliberate deposition of coins, other forms of metalwork and probably organic substances regularly occurred on temple sites.¹⁶ Powerful objects were still thrown into rivers, bogs and deposited on settlement sites following rules of care established in the Iron Age and earlier. Under Roman influence much changed: populations grew, levels of material use exploded (it is possible that the level of population and of material things only reached Roman levels again in the Tudor Period), but also towns were formed, military camps and forts were built to be connected by new roads, and villas were constructed. Much in the basic fabric of people's lives changed. Surprisingly there were also elements of life that stayed much the same, as people across the empire made a choice to adopt new Roman ways, to resist them through maintaining old lifestyles, or to attempt to blend the old and

the incoming culture into something quite new. Increasingly a blended culture emerged in places like Roman Britain, with the Roman element evident, for example, in straight roads, a more rational calculation encouraged by taxation and the imposition of bureaucracy. But older British ways persisted, not just through a reciprocal relationship with the landscape and deposition, or the continuance of Iron Age art styles to the end of the Roman Period and beyond, but also in people's refusal to adopt the new rectangular architecture, sticking instead to their tradition of round houses.

At an even more basic level, considerable elements of the Roman landscape were laid out following Iron Age alignments. We saw that important elements of the Stonehenge landscape and of earlier Neolithic monuments were aligned on the midwinter and midsummer solstices. When Stonehenge went out of use around 1500 BCE, field systems were laid out for the first time, with the central axes of these fields often aligned with the solstices. Fields are laid out and relaid down to the end of the Roman Period in places like Britain. Although the detailed structure of the fields changed, the overall alignment did not. The agricultural landscape was a spatial arrangement, but it also had time encoded into it, possibly with important ceremonies at midwinter and midsummer. Fields were not just practical but cosmological, and this cosmology had such power it lasted for almost 2,000 years, by which time Britain had become Christian. It was not just the objects placed into the landscape that indicate magic but the very layout of the landscape itself.

Europe's pagan past

People writing the pre-Christian past of Europe tend to follow one of two paths. The first, perhaps the most popular these days, is to emphasize a radical break brought about initially by the coming of Rome and then the Christian world that emerged fully after the fall of the Roman Empire. The second path takes the opposite direction, emphasizing deep but hidden continuities between so-called pagan Europe and the present. Politics is involved in both these choices, with magic central to each in contrasting ways. In the first story, magic is gradually purged from the world over millennia; in the second, magic is a central thread sustaining indigenous beliefs against the various onslaughts of modernity. Modern paganism and ancient magic help to define each other, as demonstrated by the many

thousands of people gathering at sites like Stonehenge on the solstices, a small number of whom feel the site is theirs because they claim to be the descendants of the original inhabitants of Britain (paganism is discussed more in [Chapter 10](#)).

Magic is a constant factor in Europe's past and present. However, ancient wisdom has not been transmitted over millennia through the chosen indigenous few. Magic has been invented and reinvented, just as the inhabitants of Europe have been mixed and remixed. When people in Europe tackled philosophical puzzles as to how the world works, they played with a series of long-lasting themes: the powers beyond their reach in the sky; their reciprocal relationship with generative powers; and issues of transformation and ambiguity. Each period of time approaches these problems in its own way. The sparse human world of the Mesolithic, where small groups confronted landscapes newly warmed and profuse, is far away in time but also in human experience from the dense communities of the later Iron Age. But in both instances people were throwing important artefacts into water, adding antlers to people or horses to confuse and combine the powers of species, and developing human skills in the working of wood, stone and metal that fed back into the world around them.

Such experiments with relationships did not stop with the coming of Rome or the rise of the Medieval world. As we will see in [Chapter 9](#), the Christian Church provided new venues for deposits, rather than putting a stop to them. Long experiment with transformation feeds ultimately into science, first through alchemy and then in a more objectified form as chemistry. Human participation in the world and the participation of the world in us form a long preoccupation, as a set of questions without any final answer, questions with which we are still wrestling today.

The Lady of the Lake drew out Excalibur and placed it in Arthur's hand. The past is a lake from which we draw resources, which come to exist as part of our present. But things have power not just because they derive from a past, but mainly because they can help with contemporary problems, whether these are to do with identity, our connection to the cosmos or more everyday, practical issues. The magic of the past is reworked for each age, and dies only when it has no present use.



7. Jewish, Greek and Roman Magic (c. 1000 BCE–1000 CE)

The idea of miracles has complicated the relationship between magic and religion for at least 3,000 years. Within Jewish and Arabic traditions, religious figures from Moses to Jesus and Muhammed worked miracles, which became a basis for their power, feeding then into Christianity and Islam. Meanings of the word ‘miracle’ range between the wondrous and the unbelievable, containing always the notion that a miracle goes beyond the normal workings of the world, deriving from the influence of some divine or magical power. Moses, the prophets Elijah and Elisha, as well as Jesus and Muhammed, all performed miracles of similar types: they exorcised demons, healed the sick and raised the dead, confounded their enemies in various ways and caused dramatic changes in the physical world, such as parting seas or walking on them, and making foul water fit to drink. Individual miraculous acts arose from long cultural histories in the Middle East leading back to Mesopotamia and beyond; but they were now deployed to create belief in that cultural novelty, a single God.

Maybe some element of the older belief systems clung to miraculous acts, giving them ancient power in this new world. Much later, when Protestantism confronted Catholic Christianity, its major criticism was that the older Church was magical (as we will see in more detail in [Chapter 9](#)). Beliefs that substances could be transformed or given the power to protect people were thought illegitimate, perhaps associated with the energies of demons as much as with God. Early Modern negative evaluations of magic

and miracles have made it harder to write histories of earlier periods in ways that show magic was often a positive quality and certainly a constant presence in Jewish, Greek and Roman life.

We last encountered the world of the Middle East and the eastern Mediterranean in [Chapter 3](#). There we found in Mesopotamia and Egypt, between the fourth and second millennia BCE, a Bronze Age world of palaces and temples, of kings, pharaohs and priests, in which magic and religion were intertwined in a complex double helix and equally valued. Returning now to an Iron Age world of the first millennium BCE, we find much has changed: magic is still important, but it has been repositioned by new religious sensibilities (sometimes involving a single God), the growth of smaller ethnic groups between the big empires and, in Greece, the first steps in the slow development of the idea of a mechanical universe, as a more formalized science joined magic and religion in a triple helix.

Magic was accepted without exception by all strata of society, but its practice required considerable specialist magical knowledge; amateur dabbling with such powers was generally disastrous. In the official rhetoric of these times magic is a powerful but ambiguous quality, sometimes practised by specialists or charismatic individuals, and also by priests and rabbis drawing on religious lore. Magic is intimately bound up with religion for the Greeks and Romans, somewhat more removed for Jews. It is by turns valued, contested, debated and deemed dangerous; it is a variable quality but still central to social and cultural forces, as well as being a good diagnostic of them. Magic is as important for the historian in the present as it was for contemporary people millennia ago, and in order to understand it we must briefly sketch out broader cultural traditions and histories, many of which also provide the foundations of the world in which we live today.

Big powers dominated the Late Bronze Age world, with Egypt taking over parts of the Levant and coming into conflict with the Hittites from Anatolia in the process, meeting also a third power, the Kassite Dynasty in Babylonia to the east; additionally, the Middle East had links to the Mycenaean palaces in Greece, more on which below (see [Figure 7.1](#) for a map of the main sites mentioned below).

Underlying the conflict of powerful states was a shared and copious set of traded materials. In the late fourteenth century BCE a ship was wrecked off Uluburun on the southern coast of Turkey and has lain on the seabed ever since with its cargo intact. When discovered by archaeologists in the

1980s, it provided a snapshot of a connected Bronze Age world that would come to vanish a century or so later. Ten tonnes of copper were stacked as ingots of various shapes and provenances, with one tonne of tin (enough when smelted together to make 11 tonnes of bronze). Made somewhere in what is now northern Israel were 149 Canaanite jars (of a type widely used across Greece, Cyprus, the Levant and Egypt) that contained pistacia resin (an ancient form of turpentine). Also found were 175 glass ingots in cobalt-blue, turquoise and lavender. Precious and exotic items were plentiful, including Baltic amber from the north and logs of ebony from Africa in the south. Also of African origin were elephant and hippopotamus ivory and teeth, ivory cosmetic boxes in the shape of a duck, ivory spoons for cosmetics, Egyptian jewellery, oil lamps from Cyprus, a large gold chalice, a gold scarab inscribed with Nefertiti's name, agate, carnelian, gold, faience and much more. The boat itself was built from the cedars of Lebanon. The so-called Amarna letters from Al-Amarna in Egypt document the regular exchange of royal gifts between all the major powers of the eastern Mediterranean, and the gifts mentioned there parallel closely the materials found on the Uluburun wreck. The ship seems to have been going west, possibly to somewhere like Rhodes, a well-known entrepôt, with its cargo perhaps ultimately bound for a Mycenaean palace in Greece.

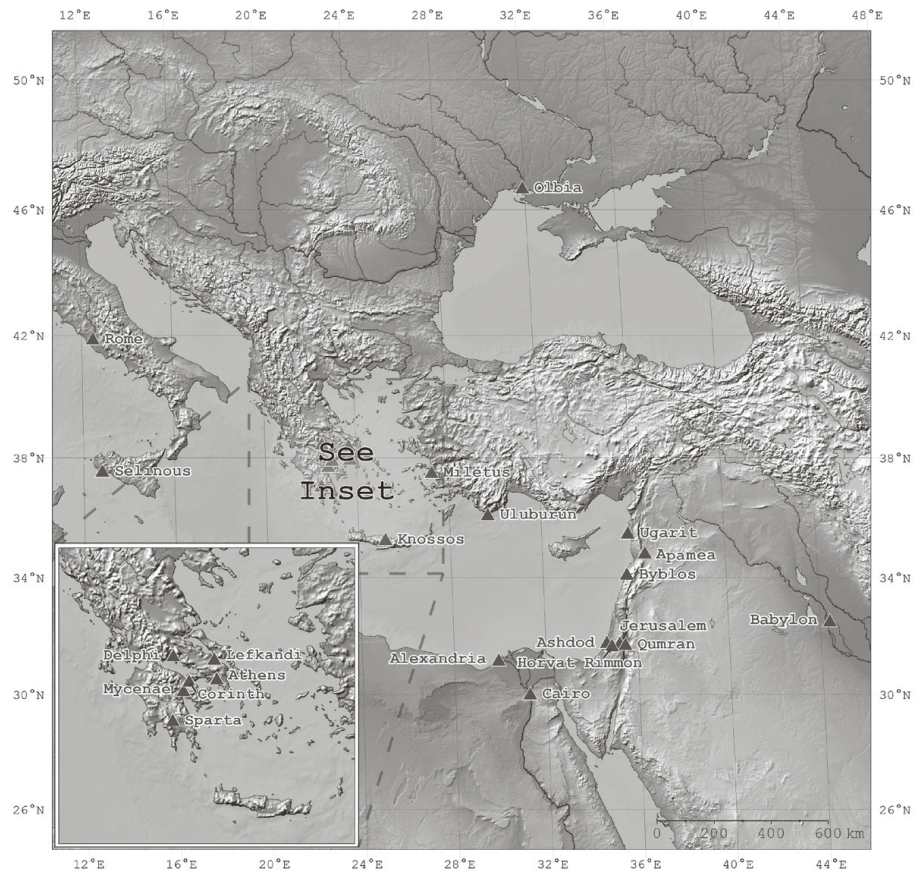


Figure 7.1. Map of the areas and sites mentioned in the text.

For reasons that are still much debated and that are not relevant to our story, this Late Bronze Age world came to a sudden and violent end around 1200 BCE; major cities, including Ashdod, Byblos and Ugarit, were destroyed, and a massive realignment of power structures took place.¹ As happens after a catastrophe, a new and different world was formed. Ethnic identities started to change around 800 BCE, so that in both the Levant and Greece new nations or city-states start to crystallize out of the mass of interaction. The people and state of Israel began to differentiate themselves from their neighbours through adherence to a single God not shared with others; the Hebrew language, in which religious ideas were transmitted orally and then in written form; a temple and sets of observances. At much the same time, through the medium of many city-states, a notion of Greek identity came into being, which kept the older pantheon of gods but used language, art and sets of political practices to define Greeks as different from the groups outside the Greek mainland or Aegean Sea, although there is always considerable variety within the Greek world too.

The Greek story has been simply and powerfully told. The city-states of Classical Greece encouraged debate and questioning, initially as part of their emerging democratic process. During the fifth and fourth century BCE renaissance, figures such as Socrates, Plato and Aristotle were rationalists, we are told, who developed the principles of logical argument from clearly stated premises, exposing all beliefs to sceptical scrutiny. One of the first casualties of this cleansing scepticism was magic, a belief that remained only among the illiterate and traditional peasant and slave cultures. Greek thought moved from myth to logic, or, to put this in a more Greek idiom, from mythos to logos. This is a powerful story, but it happens not to be true. As is the case with all human thought, the Ancient Greek intellectual world was very varied and densely populated, by gods and spirits as well as by more abstract forces. The universe of the Ancient Greeks was animate and sentient, and magic was needed to intercede with many of these forces, coexisting with moves towards rationalism. Roman magic echoed that of Greece, with an emphasis on curses and love magic, but the expansion of the empire also saw Mediterranean magic combined with those of the East and Continental Europe.

Not only were Greek, Roman and Jewish thought varied, but they derived from a complex and multicultural world within the eastern Mediterranean and Middle East in the second and first millennia BCE, a world with a mass of languages, cultural forms and practices that were sometimes highly differentiated and at other times mapped on to larger empires. The two small states of Judah and Israel in the first millennium BCE are exemplary in that they were connected to the Egyptian, Aramaic, Babylonian, Assyrian and Greek worlds among many others, acting as a vector for influences from all these and more, but distilling out of this flux something particularly Jewish, which has had important effects on the world ever since. We tend to think of the world historical influence of this area in terms of the Abrahamic religions – Judaism, Christianity and Islam – but none of these religions can be understood without also focusing on their connections to magic.

In looking at the eastern Mediterranean in the first millennium BCE, we are dealing with cultural developments that still reverberate today. Consequently, it is now hard to appreciate these periods on their own terms, rather than as steps on the way to Judaism, Christianity, Islam, the Renaissance and the Enlightenment. So many aspects of the Medieval and

modern worlds are seen to derive from Jewish, Greek and Roman culture, and we are familiar with these tales of genesis and transmission. None of our views of any period of the past are neutral, but especial care is needed when approaching Jewish, Greek and Roman culture. We will look first at Jewish magic and its histories, before considering Greek magical forms and their direct descendants in Rome.

Jewish histories

Let us now focus in on the world of the southern Levant from the Late Bronze Age (around 1200 BCE) onwards ([Table 7.1](#)). As we have seen, in the interstices of larger power blocs such as Egypt continuing out of the past, and, after centuries, the newly formed Assyrian and Achaemenid empires, new peoples emerged. One such was the Jews, through their states of Judah and Israel. It is impossible to tell the story of Jewish magic without understanding how the Jews became a people.

The two major sources we have – the Hebrew bible and archaeology – are by turns enlightening and confusing but always controversial. Around the time of the destruction of the Late Bronze Age world, in 1200 BCE, the Hebrew language separated itself from other Semitic languages, being most closely related to Aramaic (the language Jesus spoke) and Phoenician. An important aside is that the Phoenicians developed the first alphabetic script, in which letters represented sounds, so that the audible became visible, as opposed to the pictorial scripts of cuneiform and hieroglyphics. Alphabetic scripts developed in many variants across the eastern Mediterranean, partly because of the wide distribution of the Aramaic language, an early adopter of the script, and because of the trading activities of the Phoenicians themselves. The use of cuneiform and the Akkadian language were gradually limited as a result of these new scripts, which included written Hebrew. The Hebrew language, as we will see, is crucial to the nature of spells and incantations, through both its sounds and written forms.

Date	Some important events
Before 1200 BCE	Existence of a broader Canaanite cultural milieu
c. 1200 BCE	Egypt withdraws from Levant. First evidence of Hebrew language

c. 1000 BCE	Kingdom of Israel formed under United Monarchy. Jerusalem small highland village with temple
c. 930 BCE	Kingdom splits into Judah in the south and Israel in the north
721 BCE	Israel invaded by Assyrians – people enslaved
587 BCE	Judah invaded by Babylonians – First Temple destroyed and people enslaved
539 BCE	Israelites return from Babylon, Second Temple built
second century BCE	Hasmonean kingdom
63 BCE	Conquest by Rome
70 CE	Taking of Jerusalem after revolt against Rome, destruction of Second Temple. Synagogues and rabbis more central
136 CE	End of revolt by Simon Bakokba and exile of Jews of Judaea. Jewish diaspora given extra impetus; centres of Judaism shifted to Babylon and Cairo
390–634 CE	Byzantine Period
634–1099 CE	Early Arab Period – Jewish groups moved more commonly through North Africa and into Iberia
Medieval Period	Three centres of Jewry in Iberia and North Africa (Sephardim), Europe (Ashkenazim) and Middle East. Different traditions within and between these regions but also regular contact
Modern Period, from eighteenth century CE	Enlightenment thought important especially in Europe

1940–45	The Holocaust
1948	Creation of modern Israel

Table 7.1. Some relevant periods and dates in Jewish history.

Israel was one of a mosaic of small states, influenced in this region by a broader Canaanite culture. Around the tenth century BCE the Kingdom of Israel was formed, under their kings Saul, David and Solomon, the so-called United Monarchy, possibly by people who had previously been mobile, as indicated by early books of the bible. The First Temple, central to this new small state, was built in Jerusalem. In the tenth and early ninth centuries BCE archaeology indicates that Jerusalem was a highland village, growing into a city only in the late eighth century, and presumably only then did the temple reach its real importance for the state as a whole. After Solomon's death, the united state of Israel split into two, with Judah in the south and Israel in the north. In 721 BCE Israel fell to the Assyrians, and its people were deported to Assyria. Judah flourished for a while, feeding food and raw materials into Assyrian trade networks. But then in 587 BCE the Babylonians, under Nebuchadnezzar II, invaded Judah and destroyed the temple in Jerusalem, taking its cultic vessels together with the king and people into exile in Babylon.

When Cyrus the Great, the Achaemenid (Persian) king, conquered Babylon in 539 BCE, he decreed the Israelites should return to their homeland. The so-called Second Temple was then built in Jerusalem. The Second Temple was to be destroyed under Titus in 70 CE, when the Jews revolted against Roman rule, never to be rebuilt. It is important to note that a fairly strict monotheism was first developed in exile in Babylon, becoming then the basis for the worship of Y-H-W-H (Yahweh) in the Second Temple. Other moves towards monotheism had been made with Akhenaten in Egypt and the worship of Ahura Mazda by Zoroastrians. But it is likely that the Jews of the Second Temple embraced the belief in a single God more fully than any previous group. God became a singularity, a unique One, the cause of all other things. Without competing powers, a single God can insist on a singular doctrine, with which there can be no argument and from which there can be no deviation. Strictly doctrinal religions are politically powerful and potentially dangerous for any who wish to argue with them. As religion became more restrictive, notions of

heresy were developed and promulgated. It has often been said that monotheism makes magic impossible, as there cannot be powers outside of God – and we will test the truth of this assertion.

Jewish culture was (almost) always polycentric and diasporic. From at least the Babylonian conquest in 539 BCE, large Jewish communities were set up in the city of Babylon and surrounding areas, and such communities lasted into the High Medieval Period and beyond. At various times Egypt and especially Alexandria and Cairo were home to large numbers of exiles or people who felt at home there, including large Jewish populations. From the Late Roman Empire onwards, that is from the fourth century CE, Jews moved into Europe, where they became known as Ashkenazi Jews and developed Yiddish from a mixture of Hebrew, German and Slavic languages. Large numbers of Sephardic Jews settled in North Africa and Iberia, where they often flourished under Muslim rule. Jewish communities everywhere had relationships with broader populations, and these swung between the horror of pogroms and a healthy symbiosis, in which Jewish culture was somewhat discrete from wider cultural forms but still enjoyed an energetic give and take with those surrounding it. While maintaining their own identity, Jews took on influences from Persian and Babylonian cultures in the east, from Greek and Egyptian forms nearer to the centre of Judaism, and from Europe far to the west. There are parallels here, after the seventh century CE, with Arabic culture, with Jews and Arabs often living in a state of mutual recognition with each other but also difference. Jews connected magical cultures over space as well as over time, acknowledging ancient influences of various kinds that flowed through into the Medieval world.

Israel was like the other smaller powers of the early first millennium BCE in the eastern Mediterranean. Language, religion, shared practices and territory became the basis of a new state, in a manner that we now take for granted in a world of nation states but that was novel then. Internal tensions led to fission into the two even smaller states of Judah and Israel. Even when unified, the state of Israel was small, surrounded by larger powers and subject to their periodic incursions and depredations. But Israel was also different. Destruction, exile and rebirth became important elements in Israel's sense of self, so that resilience was a crucial aspect of the Jewish self-image in ancient times and in all periods since. When the Jews came out of exile, a first Judaic monotheism was born, followed centuries later by

Christianity. Both religions had world historical consequences. Intertwined in both beliefs, like the second strand of a double helix, has been magic, the world historical implications of which have been consistently underplayed.

Jewish magic: the Cairo Genizah and other sources

Although much research remains to be carried out, interest in Jewish magic has seen a great resurgence, best exemplified by a dense and marvellous book – *Ancient Jewish Magic* by Gideon Bohak, whom I have been lucky enough to get to know during my research. Gideon's scholarship is considerable, to say the least. Writing in English and Hebrew, he draws on ancient texts in Hebrew, with further work in Greek and Arabic, reading too Ancient Aramaic and Mandaic among others. If that were not enough, he has also had to contend with the fact various languages were written in a variety of scripts, so that, for example, in the Medieval Period Arabic was written in the Hebrew alphabet; there are also other exotic variants, such as Jewish Palestinian Aramaic, known to the cognoscenti as JPA, which was Aramaic rendered into a variant of the Hebrew script. One of the attractive features of the ancient eastern Mediterranean was that it was open and international, mixing beliefs and practices from many varied traditions. Jewish magic, as with Jewish culture more broadly, by virtue of geographical position in the southern Levant and periodic exiles, combined influences from the Egyptian, Babylonian, Assyrian, Greek and Aramaic worlds among others. Jewish magic distilled all these elements into something unique. To trace back the origins of the components of this cultural equivalent of a chemical reaction requires a decades-long commitment to languages and to understanding their varied cultural backgrounds.

The earliest sources are poorest, with the result that the magic of the First and Second Temple periods often has to be reconstructed from knowledge of later periods, pursued back in time. Our understanding of Jewish magic suddenly comes into focus in the Late Antique Period of the later Roman and Byzantine periods, from around 300 to 700 CE. This is due in considerable part to one remarkable source. A particular feature of Medieval Judaism was the creation of sacred stores of scripts within synagogues, known individually as a *genizah* ('archive' or 'repository'). Hebrew was a sacred script, used to inscribe the word of God. Hebrew

manuscripts could not be casually discarded without impiety, so they were kept for all time in sacred storerooms. Early Medieval Cairo was home to a very large Jewish community, and the Cairo Genizah has been described as the greatest single collection of Medieval documents in the world. British travellers of the late nineteenth century happened upon the Genizah and transported much of it to Britain, where it is now in the Cambridge University Library, the British Library and the Bodleian in Oxford, with smaller collections of material elsewhere. An evocative account of the Cairo Genizah and the sorts of Medieval history to which it can give rise is found in Amitav Ghosh's book *In an Antique Land*, which focuses partly on the Medieval textile trade east across the Indian Ocean, which set up Jewish communities in places like Kerala in southern India, home to the country's oldest synagogue, established in the fourth century CE.

Within the Genizah some manuscripts are whole, some very fragmentary, but their careful study, which is ongoing, has transformed our understanding of many aspects of Jewish history from the Medieval Period and earlier. A good number of the texts refer to magical practices, something that has been ignored or downplayed by those interested in more orthodox aspects of history. Taken together, the texts provide a direct and detailed set of accounts of the Late Antique Period of the sixth and seventh centuries CE, before the conquest of Egypt by the Arabs but after the fall of the Roman Empire. There are also glimpses back to the period of the Second Temple and just possibly earlier. The Dead Sea Scrolls from Qumran supplement this material with direct evidence of earlier periods (possibly back to 600 BCE), which can be combined with other material remains such as metal tags with written invocations or incantation bowls of Babylonian derivation, which we will encounter more of below. A prolific but contentious source is, of course, the Hebrew bible and also the New Testament. Understanding Jewish magic is a matter of working from the relatively known Late Antique world back to the more poorly understood situations in the first millennium BCE which needs considerable scholarly care and thoughtful reconstruction.

The broad categories into which Jewish magic can be divided are familiar from other times and places. Jewish magic developed a range of techniques to cope with the worries and problems of everyday life, as well as the great cosmological questions of the age. Two features of Jewish magic stand out. The first is an emphasis on protection from devils, ghosts and spirits;

aggressive magic is relatively undeveloped, in contrast to Greek and Roman curses. Secondly, especially in the Middle Ages, there was an emphasis on the esoteric, the mystical and the complex, often involving links between letters and numbers, the names of God and efforts at exorcism. We might see both protection and complexity as responses by a culture continually undergoing threat from without and debate within, although this is likely to be too simple an analysis. Jewish culture and magic were definitely not simple.

The history of Jewish magic

Prehistory to the end of the Second Temple (pre-1000 BCE to 70 CE)

Jewish magic has its own history ([Table 7.2](#)). This is barely glimpsed before the Second Temple Period, when it first evolved in a polytheistic world, before coming into a little more focus during the life of the Second Temple, from around 500 to 200 BCE. We encounter a profuse array of demons, prone to possess human beings. Demons, some Jews thought, originated from the union between fallen angels, expelled from heaven, and women, giving them both otherworldly and earthly qualities. For others, demons were the ghosts of evil people, similar to the *dybbuk* in later Jewish belief. Whatever their origin, demons could be exorcised through a number of methods: through the manipulation of animal, plant or mineral substances; through magicians' incantations and spells, together with the use of the right equipment and ritual; or through the charismatic presence and innate power of the exorcist himself (most, if not all, exorcists were male). It is not clear who the magicians and exorcists were. On some occasions they were priests of the temple who specialized in such work, but there were also people who earned a living through magical practices of various kinds.

The negative nature of demons was counter-balanced by the positive qualities of angels. Gaining angelic help was effective, as seen in the story from the Book of Tobit. The angel Raphael helps bind the demon Ashmedai, who was killing the husbands-to-be of Sarah on the night before their wedding (Sarah lost seven potential husbands through the actions of Ashmedai). Ashmedai was a constant presence in Jewish demonology, probably deriving from the Iranian *Aêsmā daeva*, 'the demon of wrath'. The technique used to get rid of Ashmedai was smoking the heart and liver of a

particular fish from the River Tigris. In the case of Sarah, the smell drove Ashmedai from Ectbana in Iran to Upper Egypt, where Raphael bound him (although Ashmedai must later escape, for, as Gideon Bohak says, he will be ‘one of the “stars” of Jewish demonology for many centuries to come’).

Date	Events and processes
Pre-1000 BCE	Little information – Moses and charismatic figures working miracles, probable belief in demons, angels, astrology and protective magic
c. 1000–587 BCE	First Temple. Polytheistic beliefs. Oral transmission of magical and religious beliefs. Possible use of amulets and of the Tetragrammaton. Continuation of earlier beliefs (as above) and charismatic figures
539 BCE–70 CE	Second Temple. Monotheism. Oral transmission of knowledge. Some written exorcistic hymns. Charismatic figures, including Jesus. Amulets. Protective and aggressive magic
c. 70–634 CE	Jewish magic comes into focus – good written sources – Cairo Genizah important. Babylonian incantation bowls and amulets common. Protective magic. Links with medicine. Increased impetus to diaspora takes magical practices across the extended Jewish world
Medieval magic	Written sources important – <i>Sepher Raziel ha-Malakh</i> , <i>Sepher ha-Razim</i> , <i>Sword of Moses</i> – which probably draw on earlier materials. Development of practical and mystical Kabbalah – especially among the Sephardim. Some astrology. Names of God and Gematria important manipulations and methods. Magical uses of psalms. Amulets important. Golem among Ashkenazim

Modern magic	Continuation of Medieval mystical traditions and practical Kabbalah but also Enlightenment critique of magic. Recent influence of Jewish magic on non-Jews, including celebrities
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Table 7.2. A schematic history of Jewish magic.

That demons were sensitive to smells was well known by Jews and Gentiles alike. The trick was to know the special plants and animals that could emit the smell capable of repelling the specific demon. Obtaining these could be tricky and risky. The story of the root known to the Medieval world as a mandrake makes an earlier appearance in Jewish lore, where it was known as a *ba'aras* root. The *ba'aras* root is by turns elusive and dangerous. Josephus, writing around 75 CE, gives the following description and advice concerning a root found near the town of Machaerus with the colour of flame, which near evening emits a brilliant light. The root 'eludes the grasp of persons who approach with the intention of plucking it, as it shrinks up and can only be made to stand still by pouring upon it a woman's urine or menstrual blood'.³ Grasping the root, when possible, can prove fatal, and you need to have another root suspended from your hand or engage in the following dubious procedure. When they have found the root, knowledgeable people 'dig all around it, leaving but a minute portion of the root covered; they then tie a dog to it, and the animal rushing to follow the person who tied it easily pulls it up, but instantly dies – a substitute, as it were, for the one who intended to remove the plant, since after this, the root poses no danger to those who handle it'⁴ ([Figure 7.2](#)). If the plant is then strapped to a patient or otherwise brought under the demon's nose, it will flee. In the Greek world similar roots were known; for the Jews, stones from the Nile existed that could scare demons, or make noisy dogs stop barking. As Bohak notes, the possibilities for fraudulent selling of false roots, stones or other substances were considerable, and it is likely that not everyone within the markets of the eastern Mediterranean resisted them.

One of the crucial aspects of Second Temple magic is that it was orally transmitted, not making the regular use of written words and numbers found later (although such a conclusion may be influenced by our lack of evidence for writing). In later Jewish magic, as we shall see, amulets with writing on them were very common. The antiquity of amulet use is less clear, but there are hints of amuletic practices, including the deployment of the name of

God, the most powerful of all words, in the Second and possibly even First Temple periods. A military failure by Judas Maccabeus against the Seleucid armies in the second century BCE was seen by some to be because local commanders had not followed Judas's orders, but others attributed it to amulets with 'images of the idols of Iameneia', forbidden by the Torah, worn by the dead soldiers.



Figure 7.2. Man harvesting a mandrake root with the help of a dog. Mandrakes are seen to be either male or female, and this one is obviously male. This illustration is from a sixteenth-century manuscript, which shows the persistence of some magical practices.

An important and ambiguous group of magicians were the charismatic holy men such as Elijah, Elisha and Moses, who were important to the growth of religious belief and as magicians. The miracles of Moses, such as parting the Red Sea, are well known. Both Elijah and his successor Elisha were able among other things to start or end droughts, raise the dead, produce supplies of food, cross the Jordan after cleaving it in two and turn

polluted water sweet. The source of the power of these holy men was somewhat unclear, but may well have derived from God. Their powers could be used for the general good (or indeed harm) or for more private benefit.

There is overlap between the Jewish and Christian traditions in the figure of Jesus, who has many of the attributes of earlier Jewish holy men. Jesus was able to feed 5,000 people by increasing the number of loaves and fishes; he did not part waters but did walk upon them; he could cure the sick, raise the dead and, most impressive of all, he himself was raised from the dead. All this fits squarely within the Jewish tradition of miracles and magic workers. The difficult point for the later history of the Church is that much of Jesus's own claims to legitimacy derive from his miracles. An ambiguous attitude to magic lay at the heart of the origins of Christianity, one that it has wrestled with ever since and has still not totally laid to rest. It is not always clear whether the powers magicians fought with or harnessed came directly from God or from demons at all, which might well have been translations into a religious idiom of older spiritual presences.

In addition to exorcism and the use of the name of God, there were very well developed forms of divination that include astrology, chiromancy (the reading of palms), physiognomy, palmomancy (the reading of people's futures through twitches and tics they might have), *gorallot* (the use of lots to divine the future), geomancy, calendology, hemerology (seeking favourable days for specified actions), bibliomancy, predicting the future using natural phenomena such as thunder or earthquakes, the interpretation of dreams and alchemy. Most techniques involved training to enable a sensitive and accurate reading of the various signs and thus of bodies of knowledge that built up over time and were passed down from one generation to the next. It is worth also noting an absence compared with most other eastern Mediterranean beliefs: offerings and dedications made to statues were forbidden, although, in other cultures, statues were often seen to be the living embodiments of divine powers. Jewish magic shared this iconoclasm with later Islam, but not with non-Protestant forms of Christianity, in which saints' statues and that of the Virgin Mary often held miraculous possibilities.

The shift from the First to the Second temples saw a move from polytheism to monotheism, raising questions of how magic could work when there was a single all-powerful God. The broad answers given were

that magic concerned not so much a singular God but rather the operations of a mass of lesser beings, both negative and positive, in the form of demons and angels.

The Late Roman and Late Antique periods (70–700 CE)

The Late Antique Period of Jewish magic in the centuries immediately before the Arab expansions in the seventh century CE developed in a new context again, one in which most Jews lived outside of Israel, in Egypt, Babylon or Europe. Mass killings or deportation of the Jews occurred after the Maccabean revolt against the Seleucids between 167 and 160 BCE. But with the destruction of the Second Temple in 70 CE, new religious institutions grew up, taking built form as synagogues and human form as the community of rabbis.

Later Antique magic is much more fully known, with manuscript evidence for various practices, but there are also a number of classes of magical objects with written spells and incantations on them. There are two broad spheres of Jewish magic in the Late Antique Period, an eastern one in Babylonia and that in the west, centred on Palestine. The east entwined influences ultimately from the Mesopotamian inheritance, with the west partaking of deep interconnections between the Greek, Roman, Egyptian and Jewish worlds. One of the best windows into the eastern world of magic are the so-called ‘Babylonian incantation bowls’, of which it is estimated some 1,500 are known, although only around 300 of these have been examined in various scholarly works ([Figure 7.3](#)). These bowls date from a brief period between the fifth and eighth centuries CE, although there are some much earlier instances known, maybe up to a millennium earlier. They show the marked variability of ancient religious and magical practices, even within such a limited area as present-day western Iran and Iraq. The use of bowls came to an end with the Arab incursions of the seventh century CE. We do not know why the bowls started to be popular in the fifth century CE, but it is possible that in earlier times similar spells were written on a more perishable medium that has not come down to us.



Figure 7.3. Incantation bowl with Aramaic inscription, Mesopotamia, c. fifth–sixth centuries CE.

These are ordinary, mass-produced clay bowls about the size of a modern cereal bowl. Many stem, unfortunately, from illicit digging, so we know nothing of their archaeological context. For those with context, many were found inside houses or under thresholds but also in cemeteries and in occasionally large numbers, perhaps still in the workshop that produced them. Bowls are generally placed upside down in various locations throughout a house, perhaps in the four corners of a room, or in a designated room. Bowls are sometimes paired and may also be found with things like eggshells, which have spells written on them in ink. On the inside of the bowls are scripts (either real or more random scribbles designed to look like letters – perhaps indicating that the producer or client was illiterate) and often images of things like shackled demons. The iconography of the drawings and the deities, formulas and spells used harks back to Mesopotamian cultural forms. The main purpose of the bowls is protective, against demons or sorcery, and they can be designed to defend an individual, a family or broader group from demonic attack. There are occasions when a named individual is being protected from, or cured of, a

specific illness. We could imagine, in such cases, that the bowl might have been placed under their sickbed.

The protective spells were written most commonly in Aramaic, then Mandaic, and much more rarely in Syriac, with a small number in an untranslated Pahlavi script, and one or two (as yet unpublished) in Arabic with Muslim elements. The bowls written in the square Aramaic script contain verses from the Hebrew bible. Those in Mandaic script use specific Mandaic terms, indicating further levels of local variability and cultural difference within the one idiom. Greek is extremely uncommon on these bowls, a further indication of their eastern cultural milieu. Conversely, Persian loanwords are known, which are pretty well absent from Western Jewish magical traditions. Bohak argues that the spells and incantations were passed down orally between groups of specialists, who customized general sets of recipes for particular purposes and clients. The spells seem to have been written in the language of the magical practitioner, as occasionally there are instructions in a different language (presumably that of the client) on the outside of the bowl, saying things like ‘in the kitchen’. The bowls were produced by many different individuals, showing the pervasive nature of these practices; job lots also exist, in which the same spell appears on a series of bowls.

From the Western pole of Jewish magic, sitting squarely within the Egyptian, Greek and Roman worlds were sets of small objects worn on, or close to, the body, including amulets and engraved gems. The amulets we know of are inscribed on thin sheets of lead, bronze, gold or silver. Measuring a few centimetres long and wide, these rectangular strips of metal (known as lamellae) had spells or incantations inscribed into them using a sharp stylus. The lamellae were then rolled, or more rarely folded, and inserted into a metal tube, box or leather pouch ([Figure 7.4](#)). They could be worn round the neck, or strapped to an arm or leg. Aramaic and Hebrew were the main languages used, or some combination of the two. Amulets are limited in time to the fifth and sixth centuries CE, but they were spread throughout the Jewish diaspora, from Sicily to Georgia, with the majority found within Palestine. At least forty amulets are known, with more being discovered all the time; they have been found in graves, houses and public settings, with one cache in a synagogue, possibly indicating official recognition of this practice. The amulets we have were probably at the elite end of the market, being made of metal; far more would have been

written on perishable papyrus or leather. Empty amulet containers reinforce this supposition.

Some amulets were mass-produced, for instance to protect against common ailments like fever; these might have a client's name added later. Indeed, most were to rid a patient of a demon causing some affliction or to protect against possession and the evil eye. We would see many as being broadly medical in purpose, although the causes of diseases fall outside the scope of germ theory. In the Greek and Roman worlds, as we shall see, curses written on lead tablets (often known by the Latin term *tabulae defixiones*) are common. Lead curse tablets are found in Palestine, but they are written in Greek, so do not stem directly from a Jewish cultural background. Whereas Greeks and Romans cursed, Jews protected – a vital difference between the two magics.

At Horvat Rimmon in the north-eastern Negev, in present-day southern Israel, a synagogue complex dating to the fifth–sixth centuries CE was excavated, and from it was recovered a set of inscribed sherds. Wet clay was written on and then baked in a fire, preserving the text. Firing the clay was a crucial element of the sympathetic magic, the heat of the actual fire igniting the flames of passion. As Bohak notes in discussing this find, the text has been reconstructed by modern scholars using parallels from later Medieval spells, and I use his quoted reconstruction as follows ‘You ho[ly ...] angels, [I adjure] you, just as [this sherd burns, so shall] the heart of R[achel? Daughter of Ma?]rin burn after me, I [X, son of Y].’⁵ This spell was popular for over 1,500 years, presumably indicating that many thought it worked.



Figure 7.4. Roman gold amulet made from a rectangular sheet (lamella) cut from gold foil, with sixteen lines of incised text along the short axis. Twelve magical characters on lines 1–3 are followed by the main text on lines 3–16 in Greek cursive writing. A charm to ensure safe childbirth for Fabia, daughter of Terentia. The lamella is complete, though with extensive rolling, creasing and post-depositional crumpling. Found in Cholsey, Oxfordshire. The inscription reads: ‘Make with your holy names that Fabia whom Terentia her mother bore, being in full fitness and health, shall master the unborn child and bring it forth; the name of the Lord and Great God being everlasting.’

Gems, rings and pendants, often worn on the body, were common throughout the ancient world. There may be at least 5,000 magical gems of the Late Antique Period worldwide with *voces magicae*, or formulas, written in Egyptian and Greek, sometimes invoking deities from those areas. Those using specifically Jewish symbols and/or Hebrew are few. A limited group is inscribed with the Menorah, the seven-branched candelabrum, but angelic or other holy names do not appear here. Gems with scenes drawn from biblical stories (Solomon on a horse spearing a female demon or Daniel feeding the Babylonian snake god) are probably Christian. There is a small number of gems that play with words, by interleaving early and late letters of the Hebrew alphabet, which in English would look like AZBYCXDW, and then adding vowels between each pair of consonants to form something resembling words. Letters were written also backwards. These are rare and baffling cases, which indicate that inscribed gems were few in the Jewish tradition, although use of gems by Jews who had lived closely with people from other cultural backgrounds may have been more common.

An important deployment of language for magic was through magical papyri and books (such books retained their importance in many later traditions). Aramaic magical papyri are not common, but this is probably because few now survive. These contain magical recipes, often in a fragmentary state. One set derives from what has been described as a ‘multilingual magical workshop’ with fragments of a Coptic magical codex, Greek magical papyri and five Aramaic fragments. The international dimension of magic is brought out by such findings, in which magical texts from a variety of traditions exist side by side, with influence from one culture to another quite possible and likely. One Aramaic text contains the so-called Tetragrammaton, Y-H-W-H, the four-letter name of God, used in the Hebrew bible (often transliterated into English as Yahweh, or Jehovah in older usage). The use of the Tetragrammaton might go back to the First Temple or even earlier, as it was said to be inscribed on Moses’s staff; and Moses inscribed the name of God on to a gold lamella and threw it into the Nile to retrieve Joseph’s coffin: the magic caused the coffin to float and the exodus from Egypt was allowed to begin. The most common use of the Tetragrammaton was on the *ziz*, the gold plaque worn on the priest’s forehead, an object said to have very considerable magical and divinatory powers. Although tattooing was forbidden (for instance by the Talmud, a

rabbinical text composed around 200 CE), it was common to write the name of God on the body as the ultimate form of spiritual protection.

Due to influence from the Greeks there was considerable play with letters as protective and divinatory means. Here the mysterious *characteres* are central. The *characteres* have excited much debate around the nature of ancient magic. Known as ring letters, their origins are obscure but derive generally from the Greek or, more likely, Graeco-Egyptian traditions. *Characteres* are quasi-alphabetic signs with rings on their ends (hence ring letters), but all attempts to make sense of them in some straightforward way have failed and we might conclude, with ancient writers, that they represent the language of angels ([Figure 7.5](#)). The *characteres* are found in all Late Antique and Early Medieval magical traditions, being evidenced from Ethiopia to Armenia and across to Moorish Spain, where they were called *carateras*.

In the Middle East *characteres* are found on many media, from amulets and incantation bowls to manuscripts, such as the famous Jewish magical text *Sepher ha-Razim*. The *Sepher ha-Razim* is probably a Jewish text, showing influence from the Graeco-Egyptian world (not least in its use of *characteres*), although this may be partly due to the composite nature of our current sources. This was supposedly a book of mysteries given to Noah by the angel Raziel in the year he entered the ark. Some Hebrew fragments of this text exist in the Cairo Genizah, and in later translations made into various languages including Latin and Arabic. The *Sepher ha-Razim* contains a description of the seven heavens, lists of angels in each section of heaven and detailed instructions on how to gain the help of specific angels for specific problems. You might wish to make the king think favourably of you, attract the interest of a suitor or do something less likely, such as catch a lion. Its importance lies in the very complex nature of the angelic world, the range of help it can give and the varieties of magic necessary to gain such help.

Magic words are common in the Jewish tradition, although many come from foreign sources and have little inherent meaning, ‘abracadabra’ being the prime example of both these aspects. Transliterating words into Hebrew from other languages ran into the problem that Hebrew has no vowels, although accidental advantages also occurred. When the Greek Sun god Helios was rendered as HLYWS in Hebrew, it turned out to have all the letters of God’s name (plus a couple more), and this echoing power may

have given Helios some equivalence to an angel. Graeco-Egyptian magic often concentrated not so much on the meaning of words but rather on their sounds or their perceived numerical connections. Following the Greek assignment of numerical values to letters, the angel Abrasax had letters adding up to 365, linking him to the days in a solar year. Other names, sometimes through the device of made-up words, had values of 3,663 or 9,999. Others were meaningless but played with sound – *phôr bôphorba phorbabor baphorba* is a well-known sequence, making it possible that its sound was thought to have a significant effect. Speaking in tongues in the early (and late) Christian Church, the undecipherable chants of the Salian priests in Rome or the inaudible sayings of Persian magi are little concerned with meaning, but rather attempt some other effect, perhaps through sound or the creation of ambience.

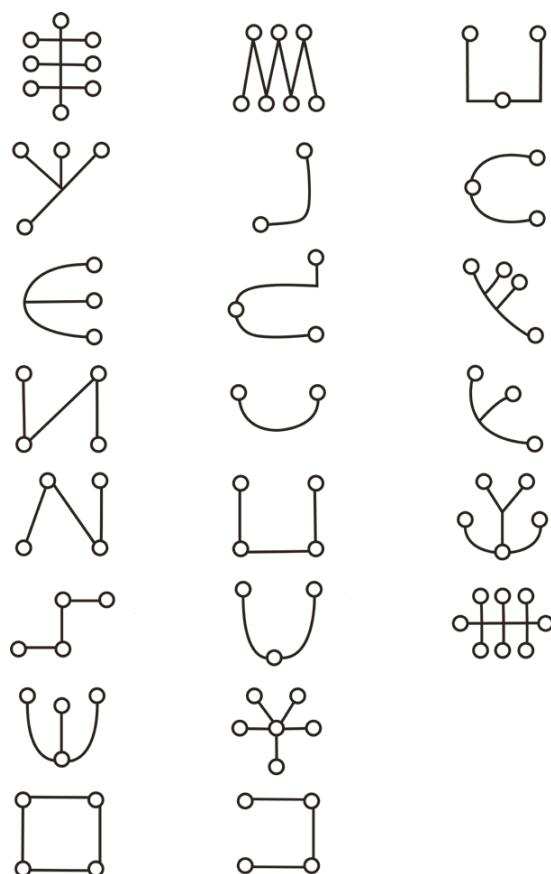


Figure 7.5. *Caractères* of the alphabet of the angel Metatron.

The ability of words to form shapes also had influence, not least through the ABRACADABRA triangle found from the third century CE onwards, as

shown by Cairo Genizah documents among other sources. Making words form a triangle by repeating them on separate lines, but missing a letter out on each line, was thought to decrease the effect of the disease as the name for the disease dwindled. On an incantation bowl from Kish, Iraq, was a spell intended to direct back the afflictions of Akarkoi, son of Mama, to those who sent them and is probably based on a transliteration of the Greek word *kefalgaria* ('headache')

QPRGYH
PRGYH
RGYH
GYH
YH
H⁶

Such word triangles could also name (and shrink) the demon thought to cause the illness. The aesthetic qualities of words, thought of as shapes, were part of the efficacy of the spell.

The role of astrology more generally within Jewish magic is controversial, with some insisting on its importance.⁷ The 'Treatise of Shem', surviving now in a version probably written from the first to third centuries CE in Syriac, but probably using earlier material, contains an almanac. How your year will be is laid out through the zodiac signs, and the predictions given are surprisingly specific, being worked out from the rising sign at the spring equinox: 'If the year begins in Virgo: Everyone whose name contains Yudhs or Semkat, and Beth and Nun, will be deceased and robbed, and will flee from his home ... and the first grain will not prosper ... and dates will be abundant, but dried peas will be reduced in value.' Such specificity might derive from centuries of observation and prediction in the Babylonian world, playing too on the letter symbolism deriving from a name in Greek or Hebrew. Whether people planted less grain or fewer peas as a result of such predictions we can now only wonder.

The birthplace of Christ was indicated by a star, followed by the Wise Men, who may have known some star lore. Babylonian and Greek astrology made easy connections between the many celestial bodies and the plethora of gods then in existence. Hebrew monotheism made such connections impossible, giving celestial bodies power over people without having the

status of deities. In this new monotheistic astrology Jewish thought set the model for later European Christian astrological practice.

Medieval and modern magic (700 CE to present)

Jewish magic over the last 1,300 years is a huge topic, linked intimately with the complex histories of the Jewish people in diaspora in the Middle East, North Africa and Iberia, as well as across Europe and most recently the colonized world, particularly North America. Magic developed through complicated common growth in *Halakha*, or religious law, which, among other things, forbids divination, suggesting that this was indeed practised. A number of books and recipes of magic were influential. We encountered the *Sepher ha-Razim* above, probably written in Byzantine Palestine but of considerable later influence. Religious works could be used for more magical purposes: for example, the Medieval text *Shimmush Tehillim* lists the magical uses of different psalms and had the honour of being placed on the *Index librorum prohibitorum*, the list of prohibited books created by the Catholic Church. *Sepher Raziel ha-Malakh* was a grimoire of so-called practical Kabbalah (the more magical aspect of Kabbalah), written in Hebrew and Aramaic in the Middle Ages but with passages that may date back to Late Antiquity. There is some emphasis on astrology, understandable given the Babylonian influences on Jewish culture. An old friend, the angel Abrasax, whom we encountered above, had his origin in the Late Antique Graeco-Egyptian world, with a name of seven letters in Greek, which can be given a numerical value of 365, indicating a link to the solar year. This one example immediately demonstrates the complexity of Medieval magical thought, in which written (and spoken) speech could link to the capabilities of numbers to shape and model reality, which was in turn connected to the movements and qualities of celestial bodies. Such esoteric pursuits were the realm of specialists, often leaving the layperson baffled or in awe, blinded not by science, but by magic.

Jewish magic still exists in the present, and it is most famous when practised by non-Jewish celebrities; shorn of almost all its cultural context, it is truly a magic for the modern age. Madonna famously was for a while enamoured of the Jewish Kabbalah, converting a large house in central London to a Kabbalah centre, one of fifty such centres across the world. Drawing very selectively on the Zohar, a thirteenth-century commentary on

the Torah, modern Kabbalah in this form touches again on the names of God, the nature of the cosmos, problems of good and evil, the form of cosmological energy and much more. Critics have ridiculed such beliefs as 'Judaism lite', and an interest in the Kabbalah may well have been a passing fad for many. On the other hand, such interests indicate a widespread feeling of lack in the contemporary world, resulting in attempts to make a deeper, more meaningful connection with the world around us, a connection that has some cosmological and moral basis.

Much more could be said about Jewish magic, but I hope to have indicated the sheer variety of past practices, many of which have varied influences in the present. The strands of magic we have just considered are characterized by their Jewishness, responding as they did to the initial attempts to establish a state of Israel in the southern Levant, but then to the varied and difficult experiences of diaspora. We move now to a very different set of cultural contexts, in ancient Greece and Rome together with the magic they created, drawn as ever from the broader cultural background in the Middle East and Mediterranean.

Greek and Roman magic

The magical landscapes of Classical Greece overlapped with those of religion, which meant that the oracles based at big temples had elements of both. There was also a changing parade of characters offering a great range of magical services. Selling their services door to door, or based in an impressive institution such as an oracle, were seers (*manteis* or *chresmologoi*), singers of incantations (*epodoi*), those who performed wonders (*thaumatopoioi*) and those skilled in interpreting wonders (*tetraskopoi*), competing with specialists in raising the souls of the dead (*goetoi*), as well as the possibly more mundane root cutters (*rizotomoi*), probably herbalists but possibly able to achieve miraculous cures, along with the *pharmakeis*. Such a clear classification of magicians is in any case too neat, and many would have mixed a variety of magical skills to match the current demand. If the rulers of a state wanted advice on weighty matters of war and peace, or an individual required more personal advice, there was a baffling array of magicians available, ranging from descendants of families famous for their particular magical art to those who, chancing on a book of oracles, had newly set themselves up as experts.⁸ But predictions

of the future were difficult. For instance, the seers took opposing positions when asked whether Athens should wage war in Sicily in 413/412 BCE (those who warned against this war were proven right when the Athenian fleet was destroyed). Seers had official positions in many city-states, being consulted on policy and action, giving state actions a magical dimension.

Before seeing how magic reached into all aspects of Ancient Greek and Roman society, we need to situate the world of the city-states of Greece, with their new forms of ethnicity, and the imperial developments of Rome, with which we will mainly be concerned, in a longer historical background. I shall treat Greek and Roman magic together, as they exhibit huge overlap, although, as ever, historical changes occurred.

Just as with the development of the Jewish world, that of Classical Greece emerged as a transformation of the Late Bronze Age international situation. We saw earlier that it was thought the ship wrecked off Uluburun on the south coast of what is now Turkey might have been headed towards a Mycenaean port or palace. Such palaces in turn had roots in earlier Minoan Crete. The large island of Crete was first settled by early seafarers sometime at the end of the last Ice Age. Through the Neolithic and Early Bronze Age, Cretan farmers participated in the development of an Aegean and eastern Mediterranean way of life, through the domestication, cultivation and storage of olives and grapes, the first stored as oil or whole, the second as wine. These crops, together with cereals and the usual suite of domesticated animals, allowed populations to settle and grow, with stored food vital outside the growing season. From around 2000 BCE the first palaces appear in Crete, the most famous of which is Knossos. The Minoan palaces housed several thousand people each, and were home also to a king and aristocracy, aided by scribes and administrators who recorded agricultural produce and traded goods. A number of scripts were used for records in succession: the earliest is hieroglyphic, succeeded by so-called Linear A, neither of which is translated. Linear B, on the other hand, has been translated and proven to record a form of Greek. These were Greeks in some sense, but not as we know them from later periods, and great care needs to be taken in seeing links between the palaces and later city-states.

Knossos and other palaces were surrounded by smaller farmsteads, where crops were grown and processed. Although this was a very different world in many ways, we can think of a landscape of olive trees, grapes, cereals, sheep, cattle and pigs resembling that of today. The tops of hills and

mountains housed so-called peak sanctuaries where offerings were made, including votives of body parts, maybe offered for healing. Written records indicate divine figures with some of the same names as the Classical Greek pantheon, but we must assume that, in the absence of temples and priesthoods, religious sensibility was quite different from that in later periods. From 1800 BCE onwards international links increase in evidence, with the site of Ugarit on the present-day Syrian coast important as a centre of trade and connections, as was Egypt in all periods. Middle Eastern palatial societies contain written records that indicate trade with Crete, and links between Greece and the East were important then and later (see [Figure 7.1](#) for a map).

The early palaces decline from around 1700 BCE for reasons poorly understood, but soon rise again. In addition to the palaces in Crete, from this period too we find the first palaces on the mainland of Greece, built by people we know as the Mycenaeans. As well as excavating at Troy, Heinrich Schliemann dug at the famous Mycenaean royal shaft graves in the 1870s and 1880s, recovering a great range of exquisite artefacts. From their apogee, the Cretan palaces decline and then, around 1200 BCE, so do their Mycenaean equivalents, as part of the broader Late Bronze Age collapse. Between 1200 and 800 BCE there is what is known as a 'Dark Age': populations fell, with remaining people moving into smaller individual farmsteads. Not all is dark, however, as the site of Lefkandi on the island of Euboea (excavated most recently by my colleague Irene Lemos) shows. Here, a little after 1000 BCE, a large rectangular structure was built, with well-furnished burials placed in its floor. One of these, a woman, has among other things a gold Babylonian chest ornament that was at least 1,000 years old when buried, surviving from the Bronze Age into the Iron Age, propelled by a slow transformation from a bronze technology to an iron one, which was neither as rapid nor as revolutionary a change in technology as once thought.

From around 800 BCE the famous Classical city-state, or *polis* (*poleis* plural), such as Athens, Sparta and Corinth, emerges, with relatively small populations. Athens has perhaps 5,000 people in 800 BCE, rising to 40,000 when Plato and Aristotle lived there in the fourth century BCE. Fairly soon similar city-states also arose in Sicily, southern Italy, southern France and around the north coast of the Black Sea. These used to be thought of as Greek colonies, although their relationship with Greek cities is now seen to

be complicated, and they were probably fairly independent. From 800 BCE also derives the Greek alphabet, inspired ultimately by the Phoenician script but adding vowels, something that the Semitic scripts of the Near East lacked. This meant it was possible to read and pronounce Greek, even for people who could not speak it.

Through the conquests of Alexander the Great (who died in 323 BCE, having been tutored by Aristotle as a youth), Greek culture spread to the borders of India and across North Africa, where it gave rise to a range of interesting hybrids, such as Graeco-Egyptian culture, which we will look at later, or Graeco-Bactrian ways of life, which combined Greek and Indian influences in art, science and magic.

At the same general time as the rise of the *polis* around 800 BCE, the Etruscan culture evolved in northern Italy from a preceding Iron Age culture, the Villanovans. The Etruscans were urban and enjoyed close links with Greece, as well as developing their own culture. The Etruscan language is non-Indo-European and is only partly understood today, making archaeology our major source of evidence. The Etruscans believed in a pantheon of gods, although the nature of their deities is somewhat obscure. Their relationship with Rome is controversial, with some arguing that they founded Rome, while others prefer to see the Etruscans as influential on Roman culture. Rome prevailed over the Etruscans in the early fourth century BCE, progressively reducing other rivals such as the Samnites, to unify Italy in 218 BCE. Romans engaged too in war with the Carthaginians, the descendants of the Phoenicians who had set up trade links across the southern half of the Mediterranean, finally defeating them in 146 BCE. Territories within Italy were combined into a single state. The military organization of the Romans allowed them to subjugate territory beyond Italy, such as southern France by 120 BCE, followed by Pompey's campaigns in Iberia and then the Middle East in the 70s and 60s BCE, complemented by Caesar's conquest of Gaul in the 50s BCE (together with an excursion into Britain). Egypt was annexed in 31 BCE, and Octavian became the First Emperor Augustus in 27 BCE, ushering in the empire that lasted in various guises for much of the next millennium.

The Roman Empire at its greatest extent stretched between the Persian world and Britain, including also North Africa and Europe to the Rhine. An older view of the empire saw it as bringing civilization to the various natives, especially those of Europe. Now we would adopt a more nuanced

view, seeing a series of influences flowing between the Romans and the various indigenous peoples they conquered. New cultures were formed in the process (Romano-British for instance), but the Romans themselves were also Romanized through imperial links. The empire might best be seen as a huge circulation system, moving people, materials and ideas. One of the most important instances of these cultural flows was the introduction of Christianity from Palestine to the West, first when Constantine became Christian in 312 CE and then in 391 CE, when Christianity became the first official faith of the empire as a whole.

Greek and Roman magic, religion and philosophy

A brief sketch is needed of magic, religion and philosophy at this time in order to situate magic, which existed in an ether created by religion, yet within sight of the first glimmerings of both a mechanical universe and of a particular kind of rational thought, one based on the critical questioning of the premises for intellectual schemes and their logical coherence. Twelve hundred years after their first appearance such ideas would become dominant in Europe as the basis for scientific rationality.

Greek religion had no dogma, no official creed, no holy book, no priesthood and no Church. Greek religion started around 800 BCE and was based on the familiar pantheon of Olympian gods. Religious observance used to be seen as the official business of the *polis*. But more variety is now perceived, with the international dimension important, as the pan-Greek oracle of Apollo at Delphi or indeed the Olympic games in honour of Zeus indicate. Within each *polis* a greater variety of religious observance is now also acknowledged, from small-scale family shrines to festivals for clans and lineages. The opening up of our views of Greek religion provides possibilities for magic to add to the spectrum of beliefs and practices, and the range of mystery and ecstatic cults is marked. For Julia Kindt, who is reconsidering Greek religion, magic can be understood only in the context of religion, as evidenced by a closeness between magical formulas and Greek prayers. Moreover, the same people were involved in religion and magic within the *polis* and beyond. The Greek gods were powers, instantiations of aspects of the knowing universe in which people participated through connecting and bargaining with the gods giving them meat, objects or promises of action. In the Roman world a term we have

met before, *Do ut des* ('I give that you might give'), indicated the same transactional stance towards the gods. Both magic and religion were bargains with cosmological powers in a manner foreign to later science. If the gods were approached in the appropriate way, they would respond – no one asked a question of the oracle without getting an answer. What no mortal knew was what the god would say.

Greek society was individualist and competitive, and many have seen Greek magic as an attempt to harness the cosmological powers to one's own advantage. An expert on Greek magic, Esther Eidinow, takes a slightly different view, seeing this as a culture of anxiety, generated by the unpredictable nature of relations with the world and between people. The writing of spells against others is driven too by negative emotions such as *phthonos* ('envy').⁹ In business, love, sporting tournaments or war people competed subtly or openly. *Phthonos* contained hints of *Schadenfreude* – enjoyment of the misfortunes of others. This more covert form of competition was pursued through magic, as well as an understanding of the best path to take for oneself. The prevalence of envy, competition and anxiety led to well-developed and much used technologies of magic.

Across the Roman Empire, prior to Christianity, a great plethora of rites, beliefs and deities were manifest. People did not necessarily have their own religion that they carried around with them. Worshipping local gods was both acceptable and practical – when Alexander invaded Egypt he worshipped at local shrines to their gods. Like Greek religion, Roman religious practices are now being rethought by scholars, with a greater emphasis on variety and creativity. In many ways, contemporary analysts are trying to work themselves out of an implicit Christian mind-set, in which it is assumed a religion will have a doctrine, a set of strictures against bad belief or heresy, and an institutional Church running in parallel with state power. These elements only slowly came into being with Christianity (and indeed Judaism and Islam). In the earlier, more open and plural religious world, magic took its place alongside other beliefs and practices. Magic was woven through the fabric of the Roman world.

Magic was gradually displaced by the shift to a mechanistic view of the universe, which held that the universe moved through its own forces and mass in a manner that was predictable and not influenced by divine powers. The Pre-Socratic philosophers from the town of Miletus in Asia Minor, Thales, Anaximander and Anaxagoras, were central to these ideas.

Anaxagoras instructed Euripides and Pericles, but was tried for impiety in Athens (437/6) when he said the Sun was not a deity but a rock, for which he was exiled to Lampsakos. The charge of impiety was later brought against Socrates, for which he was condemned to death, not for denying the existence of gods but for urging what was seen as an improper relationship with them. Socrates's philosophy was taken up by Plato and his pupil Aristotle in the fourth century BCE. Although both held a broadly mystical sense of the world, the dialectical method of questioning used by Socrates stayed with them, as they also built an empirical approach to revealing the structure and workings of the world.

As ever, magic operated in a complex and dynamic philosophical environment to which it also contributed. It is to Greek and Roman magic in the form of oracles and curses that we now turn.

Oracles

Across the Greek and Roman worlds people consulted oracles to learn about the future. The oracles varied from small local shrines to large international centres, such as the Oracle of Apollo at Delphi; and the questions posed also ranged widely from personal matters to affairs of state. Consultation of oracles was an ancient practice, with the barque oracle in Egypt having a deep history, during which people carried the sacred boat of Amun and onlookers posed questions as it passed by. During the eighth century BCE, as the Greek city-states were coming into being, there was also a profound reorganization of the sacred landscape, with new buildings on older sacred sites, as well as the construction of temples and sanctuaries in previously unused locations. Increases in votive offerings also occurred. Many sacred sites served their local areas, but some gained international status. Prime among these was Delphi, where people came to gain answers from the all-seeing god, Apollo; the sanctuary started in the eighth century BCE for local use, although there is evidence that from the first people brought votive offerings, such as bronze warrior figurines or pots, from distant places. In the next century the sanctuary expanded, but suddenly in the sixth century it was removed from local control and an inter-state league was formed, called the Delphic Amphiktion, to oversee cultic activity. When Greece was given more unity in the Hellenistic Period, after Alexander's conquests in 331 BCE, Delphi's role started to wane, indicating

it had been linked to the politics of independent city-states and the rivalries these created.¹⁰ Delphi did continue in use until late in the Roman Period, as we will see.

Those visiting Delphi did not consult Apollo directly but through the intermediary priestess, the Pythia, a much debated figure ([Figure 7.6](#)). Questioners were all male and allowed to ask questions on only one day a month for nine months of the year. The priestess of Apollo was earlier seen as a helpless dupe in the power politics of the temple, but now can be viewed by some as the most powerful woman in the ancient world, as delegations from various states posed questions and received answers that altered their courses of action. People travelled over long and short distances to visit Delphi, needing to purify themselves and make various gifts and sacrifices before the oracle could be questioned; bad omens after purification and the giving of gifts to the god would halt the consultation. If it proceeded, the questioners were led into the temple, where the Pythia sat on a tripod in a small room beneath the temple, probably inhaling fumes that drifted up from a crack in the ground (whether there were fumes and what they were – possibly being volcanic in origin – is much debated). The Pythia would answer questions posed to her. There is now disagreement as to the nature of her answers: some feel that she spoke in verse and riddles; others argue that the verses were composed afterwards. In any case the answers were famously oracular – people often only understood the full import of what she had said after the actions referred to in the question had taken place.

The questions placed before the oracle ranged from larger issues to the more personal. Alexander asked the Pythia about the success of his campaigns, as had his father Philip II before him. The Athenian general Miltiades was interested in whether he should advise the Thracian tribe of the Dolonkoi on their affairs as they had requested. The king of Lydia in Asia Minor, fearing he had committed a sacrilegious act, asked whether this was the cause of his illness. Some received answers to questions they had not asked: Polymnestos, a nobleman of Thera, nicknamed Battos after the Greek word for ‘stutter’, asked about his speech impediment and was told he should found the city of Kyrene in Libya, which he did. Croesus, the king of Lydia, asked what would happen when he attacked the Persians and their king Cyrus. He was told he would destroy a great kingdom; it was only after his failed attack that he realized the kingdom to be destroyed was

his. Many wondered about marriage, their lack of children as heirs or monetary matters. Some angered the god through an impious question, wanting to break some moral code, ranging from whether it was possible to get away with murder to the advisability of perjury.

The Pythia (and indeed Apollo) patiently answered, while much of human life passed before them in various worried states. We only rarely know exactly how a question was framed or the nature of the answer given, although we have accounts of over 600 questions drawn from a great range of sources. The Greeks did not see things in such prosaic terms: they thought they were receiving the divine word, from a god who could see all in the world and give suitable pieces of advice deriving from his omniscience. Considerable effort went into framing questions and interpreting the answers. Again, in our terms, this might have helped people to think through their predicaments or hopes for the future, so that the Pythia may be seen as a combination of political adviser and personal counsellor, able to frame answers that were relevant, culturally acceptable and personally helpful.



Figure 7.6. Delphic Oracle in the painting *The Oracle* by Camillo Miola (Biacca).

Oracles and divination were well known first in Roman Italy and then across the empire. Greek oracles were popular with Romans, especially after the incorporation of Greece into the empire in 146 BCE. ‘Beware the Ides of March!’ is one of the most famous of all prophetic utterances, now known best through Shakespeare, but attributed by Suetonius to a seer, or *haruspex*, named Spurrina, who gave this advice to Julius Caesar in an unsuccessful attempt to prevent his death. *Haruspices* in the Roman world examined the entrails of animals, often a sheep’s liver, to foretell the future from the shape, concentrating on abnormalities, a process we first encounter in the Mesopotamian world (see [Chapter 3](#)). With the adoption of Christianity as the official religion of the empire, the emperor Theodosius closed down all the oracles and shrines in 390/391 CE in an attempt to end the pagan cults, an effort that is likely to have been unsuccessful, but that did bring a formal conclusion to the oracle at Delphi and others.

Curses

Most holy Lords, *Kharaktêres*, tie up, bind the feet, the hands, the sinews, the eyes, the knees, the courage, the leaps, the whip, the victory and the crowning of Porphyras and Hapsicratês, who are in the middle left, as well as his co-drivers of the Blue colours in the stable of Eugenius ...¹¹

The rivalry between the Blue and Green chariot teams who raced in the Hippodrome in the city of Apamea, a Greek city in Syria, was followed throughout the ancient world. Among attempts to affect the physical abilities of horses or drivers, the curse is typical. This comprehensive curse tablet from the fifth or sixth century CE from which these lines are taken was aimed either at the charioteers or the horses (we don't know which) of the Blue team. Much money was bet on races, giving this anti-Blue magic a fraudulent aspect, although it is likely the Greens suffered counter-magic. The tablet also features our old friends the *kharaktêres* (now rendered in a more Greek than Latinate spelling), or ring letters. There are thirty-six *kharaktêres* on this tablet, and it has been speculated that they might link with the thirty-six divisions of the heavens in Egyptian astrology. It is also worth noting that the *kharaktêres* are addressed as if they are animate and have their own intentions. If so, they are actors in this game, rather than representations of something else, whatever that might be. We shall return to the question of animacy below.

At least 1,700 curse tablets have been found across the Greek and Roman worlds, and many more are being discovered all the time ([Figure 7.7](#)). The earliest known ones date to the end of the sixth century BCE and are from the Greek colony of Selinous, Sicily. By the mid fifth they appear in Athens and then in Olbia on the Black Sea. From the mid fourth century BCE curses spread across the Graeco-Roman world. The main subject matter of all Classical-Period curse tablets seems to be litigation, which is relatively rare thereafter; and the largest number of curse tablets, prior to the Roman Imperial Period, are from Attica, with many from the Agora in Athens as well as the Kerameikos Cemetery. The Roman Imperial Period sees curse tablets spread across the Mediterranean, being also found in Britain. They have marked stylistic similarities, given how geographically dispersed they are, and from the second century CE there are considerable influences from the Egyptian and Jewish worlds.

Unsurprisingly, tablets in Latin are mainly found in the western portion of the empire. The latest use of curse tablets occurs between the sixth and eighth centuries CE. As with the Jewish protective amulets, curses are most commonly written on sheets of lead, with some use of precious metals, but curses have also been found on potsherds, limestone, gemstones, papyri, wax and ceramic bowls. Now written in Latin, they are often known by the Latin name of *defixiones* (*defixio* singular). Together with figurines whose limbs are bound or twisted, made from wax, clay, wool, sometimes lead or bronze or very occasionally marble, these are part of binding magic; Plato, one of the few who refer to these tablets, wrote that this kind of magic used a binding curse – *katadesmos* (*katadesmoi* plural) – so that the victim was bound to the will of those placing the curse. Tablets were wrapped or rolled, and in rare cases pierced with a nail; the tortured figurines are often disturbing, being commonly pierced with pins or nails. There was a basic binding formula, which could be adapted for use in areas such as the law, athletics, drama, business, revenge and justice, sex or marriage. Some curse tablets have well-formed scripts, others less so, indicating that sometimes professional scribes earned extra income through cursing. Much of human life was covered by cursing, which may explain its popularity.



Figure 7.7. Early-fourth-century BCE Greek curse tablet.

Writing a curse required a four-fold relationship, comprising the client who commissioned the curse, the specialist who composed the curse, often drawing on established formulas, the god (or sometimes the spirit of a dead person) who enforced the curse and the victim who suffered from the curse. The causal agents behind the curse were either the gods (who themselves could not be bound for any length of time) or the unburied dead, angrily roaming the world hoping for mischief. The chthonic gods, Hermes, Persephone and Hecate, who resided in the underworld, or moved between it and the world of the living, were most commonly called on to enforce binding. Curse tablets were given extra power by being placed in tombs; and curses were written on tiny coffins containing small dolls (which remind us of voodoo dolls) that were also placed within tombs. The dead in the grave chosen may have had no connection to any of the parties to the curse, but there is some suggestion that the dead who had committed serious crimes might be sought out to lend malign power to the curse through association. *Daimones* ('disembodied souls') were frequently

addressed in curse tablets, but not necessarily the soul of the person in the grave in which a tablet was placed. Curses and counter-curses would fly back and forth, say at a big sporting event, making the outcomes uncertain. Palindromes were especially common in Imperial Roman tablets, and they were sometimes of considerable length. Such was the dangerous creativity of magic.

Some curses are visceral in the degree of detail they go into, and the specific references they make to individuals and their bodies indicate what seems to us a most unhealthy obsession:

I assign Zois, the Eretrian, wife of Kebeira, to Earth and to Hermes.
I bind her food and her drink, her sleep and her laughter, her
meetings and her cithara playing, her entrance, her pleasure, her
little buttocks, her thoughts, her eyes ... the earth.¹²

The curse assigns Zois to the underworld deities, giving them power over her, focusing then on parts of her body and aspects of her behaviour. As Esther Eidinow argues, it is likely that Zois is a *hetaira*, a woman hired to entertain at male drinking parties, in which her musical talent for the cithara would have only been part of her attractions.¹³ Whether this curse was to curb Zois's success or to bind her in love to the client is unclear.

Love magic becomes common after the Classical Period. In a magical papyrus we find the following spell for forming and then animating Eros:

There is a rite for acquiring an assistant, which is made of mulberry wood. A winged Eros is made, having a cloak, his right foot put forward and having a hollow back. Into the hollow put a gold leaf after writing so and so's name with a cold-forged, copper stylus [and] 'MARSABOUTARTHE – be my assistant and helper and sender of dreams.' Go late at night to the house of the woman you want, knock on her door with the Eros and say: 'Behold, so and so dwells here; stand beside her and, after assuming the likeness of the god or *daimôn* she worships, say what I propose.' And go to your home, set the table, spread a pure linen cloth and seasonal flowers, and set the figurine upon it.¹⁴

Much is of interest here, beyond the potential embarrassment of turning up late at night at the house of your possible love with the statue of a god and assuming the attitude of the god. You would have to take magic and yourself seriously to entertain this as a potentially winning strategy. Specific materials appear vital to the efficacy of the action, and these materials were carefully spelled out – mulberry wood for the statue, gold leaf and a cold-forged, copper stylus. If all goes well, Eros will send dreams to the potential innamorata, who may not be able to resist them. Eros may not have been the passive vehicle of desire but, once again, an active player in the game, and later antiquity saw much discussion as to whether statues could actually move, having some independent volition or energy.

That statues were seen to act on their own might be seen as fanciful were it not for well-known instances. Theagenes of Thasos was an athlete. Part of his demonstration of strength was to carry a very heavy bronze statue from the marketplace to his house and back again. After Theagenes died a bronze statue of him was put up. An enemy of his took to flogging this statue at night, as a substitute for hitting Theagenes himself. The statue ended this practice by falling on the man and killing him. The statue was then tried for murder in a special court, the Prytaneum, reserved for the trial of what we would see as inanimate objects, although clearly the Greeks did not place the boundaries between living and lifeless where we do. The statue was found guilty and ordered into exile, which, in its case, meant it was thrown into the sea. When a famine hit Thasos, the Oracle of Delphi said all exiles should be allowed to return, which eventually led not just to the return of human exiles but to the statue being fished from the sea. The famine then abated.

Roman law contained significant prohibitions against magic, which increased as time went by. Magic became conflated with the broader idea of *maleficium* ('mischief' or 'harmful magic' – also a common term in later witchcraft accusations) by the Imperial Period, starting to taint all magic with negative tones that became stronger under the effect of Christianity. The term *veneficium* could mean either drug or poison, and, much like the Greek word *pharmakon*, it usually referred to the magical substances, the active ingredients, that made *maleficium* possible. Herbs that could turn people into wolves or cause one farmer's crops to move to the fields of another were definitely harmful magic. If someone was poisoned, it was a moot point which kind of *veneficium* was employed and mattered only

because it reflected on how extraordinary the powers of the poisoner might be.

Roman curses are found across the empire but in regionally variable forms. Britain has produced an unusual set, in which at least a third of the 150 curse tablets found concern robbery, a concentration not found elsewhere. Curse tablets are first evidenced in the second century CE, decades after the Claudian invasion in 43 CE. Some 130 of the British curse tablets were found at the Roman baths and temple in Bath; the rest were deposited in other sanctuaries or into water. Of the tablets from Bath only two were in the same hand, perhaps indicating people wrote their own tablets and did not rely on specialists. This in turn might show that knowledge of cursing and perhaps other forms of magic were widespread within the population, or at least among those who were literate. Some of these British curses provide the names of the victim and an even smaller number also include the person writing or commissioning the curse. The variable levels of information provided for the god could indicate different notions of how much the god would know – some were all-knowing, realizing for themselves the circumstances of the case; others might require more background and help.

Magic in the Roman Empire occurs in hybrid forms, deriving partly from the Graeco-Roman background, but also with influence from the local provincial culture. A further hybrid, with considerable future resonance, occurred in Egypt, after its conquest by first Greece and then Rome, which occasioned considerable magical blending.

Graeco-Egyptian magic

Leave this text untranslated, so that these secrets remain hidden from the Greeks and their irreverent, feeble, and orotund speech does not undermine the dignity and vigour of our language and the energy of the names. For the discourse of the Greeks, though outwardly impressive, is empty, and their philosophy is nothing but verbose noise. We, by contrast, employ not words but sounds full of energy.^{[15](#)}

After Alexander conquered Egypt in 332 BCE, a composite tradition of magic slowly grew up in Egypt, initially blending Greek and Egyptian

forms but also taking influence from Jewish, Persian, Roman and eventually Arabic cultures. Such a body of knowledge is of importance in its own right, but also for the effects it had on Medieval magic, mainly through the so-called Hermetic corpus – a series of texts starting in the second century CE through which the wisdom of the ancients was thought to be transmitted into the contemporary world. Greek scholars were attracted to the Library of Alexandria, and some Egyptian priests learned to speak and read Greek, the international language from the Hellenistic Period down to the Roman annexation of Egypt by Octavian in 31 BCE. As we have seen, Jewish communities were set up in Alexandria and Cairo, with many retired Roman soldiers also settling in Egypt. Early Christianity and Gnosticism (itself a fusion of Platonic ideas, Christianity, Jewish and Persian intellectual traditions) both developed and flourished, with Coptic Christianity a particular Egyptian development from 42 CE onwards. Such a diverse mix of influences was bound to produce exotic modes of thought, the variety of which interested many then and now.

The most important source for Graeco-Egyptian magic is a set of papyri, dating from the Roman Period in Egypt although written in Greek (with a small number, maybe from a single cache in Thebes, written in Egyptian), now known as the Greek Magical Papyri. Egyptian magic was generally protective or concerned with the dead, whereas Graeco-Egyptian magic has the agonistic element of Greek magic, with an emphasis on curses and binding. But Egyptian strands are also clear, through the invocation of local deities and the mummification of animals, sometimes with curse tablets within their wrappings. Summoning deities and then questioning them, either through a vision or in a dream, was a common feature. Magic writing appeared in the papyri, using the seven Greek vowels especially, on occasion arranging them in a circle or a triangle. Greek words, letters and names feature on gemstones, and a complex interplay between the words, images and colour of the stones was displayed – for example, writing on a white stone might promote a mother's milk, wine-coloured amethysts prevent intoxication and so on.

The Hermetic literature was especially influential through a body of Greek texts written between the first and fourth centuries CE, although they often only survive in later transcriptions. They purport to be the writings of the sage Hermes Trismegistus (a Greek version of the Egyptian term meaning 'thrice great', which had been given to Thoth in the second

century BCE). Hermetic texts range between the theoretical and the technical, with the latter instructing in magic, astrology and alchemy. The astrology of the time developed from a combination of Greek thought and mathematics together with Egyptian and Mesopotamian star lore; it is possible that the twelve signs of the zodiac were a Greek invention. Some forms of magic worked better under their own star sign. More generally, links were made between the energies of stars or planets and precious stones, metals and parts of the body.

A transcendental dimension was important, with trance allowing people to free themselves from bodily influences and commune with gods. Alchemy, in some versions, was not mainly about turning base metals to precious ones but emancipating the soul from the material body. In these views, the art of magic could provide entry into the mysteries of the cosmos. Christianity grew more dominant, and by the fourth century CE most of the old temples had been given up, with churches common. Hermes Trismegistus was often seen by Christians as pagan but important, for instance by Augustine of Hippo. The Arab invasions of the seventh century brought new cultural influences, giving rise to the most famous Hermetic text of all, *The Emerald Tablet*; probably composed in the ninth century CE, it later had a considerable influence on alchemy.

Through the Medieval Period translations were made from Arabic and Greek into Latin. It was with the translations by Marsilio Ficino, for his patron Cosimo de' Medici, of fourteen Hermetic texts in 1462 that the Hermetic corpus began to have an influence on the European Renaissance. Philosophers like Giordano Bruno (the subject of well-researched historical novels by S. J. Parris) were attracted by the idea that the understanding of natural forces could form a new basis for natural philosophy. This is a story for [Chapter 9](#).

Mediterranean magic

A magic-carpet ride round the Mediterranean, with side trips into the Roman Empire, at some point around the end of the first millennium BCE, or the start of the next, would have revealed many types of magic, in addition to the oracles and curses discussed here. Attempts at alchemy were common, and astrology was influenced by the Babylonian and Assyrian worlds but channelled into local variants. Greek medicine developed the

theory of Humours, in which the body was seen to be made up of combinations of Earth, Air, Fire and Water, which also linked people to the planets. The theory of Humours set the basis for European Medieval medicine.

Two philosophical developments slowly rose to prominence. The first concerned the nature of knowledge and questions such as: how do we know the world in which we live; how certain can we be in our knowledge; and are there contradictions in our arguments? The second started as an unusual thought experiment – instead of seeing the cosmos as a living entity, perhaps we could understand it in more abstract terms, such as force, mass and velocity. The second development helped to change and manipulate the world to human benefit, through building bridges, viaducts, roads and sewers, using ideas conceived by the Greeks but leading to the gigantic projects of the Romans. This more abstract view of the world, stemming from the Pre-Socratics, coexisted for around 2,000 years with the living cosmos; abstract approaches became the basis for getting things done, and a sentient universe provided the framework for living a more rounded and satisfying life. A mechanical universe later became integral to science, and a living universe to magic. It is only much later, in the Early Modern Period, that they came to be seen as opposed to each other. Such an opposition is not necessary. Logical reasoning is not the friend of science or the enemy of magic, but useful to all attempts to understand the world and thrive in it.

Charismatic individuals channelled cosmic power in a way others did not. Towards the end of his life, after his many victories, people would vie to touch Alexander the Great's clothing to transfer some of his power to themselves. People were not separate from the world but existed in a unity with it, for good or evil. Divine powers were stronger instantiations of human power. Furthermore, people acted in a world of active things. An angry statue could kill, a lead tablet cause harm. Moral responsibilities extended to the material world, which could not be used or exploited with impunity. Famines resulted from divine displeasure, so that a city had to act to put itself back into divine favour. The single God of the Jews changed the rules of these games, as opposed to polytheisms, because in theory, at least, one God was all-powerful and not a little temperamental. Distinctions between polytheism and monotheism were softened by the extravagant range of angels and demons, who could and did act on their own. People

needed to deal with them, and magical means were often employed in these dealings.

Jewish, Greek and Roman magic differed in their cultural background and intent but were mutually influential. Jewish magic, at least through the sources that have come down to us, seems more protective than aggressive. The individualistic and competitive societies of Greece and Rome cursed aggressively and often, and touched upon many of the most important things in people's lives. On the magical balance sheet, Jewish magic had a strongly positive record; that of the Greeks and Romans was much more negative. Such negativity contributed to the poor reputation of magic, lending it doubtful and dangerous aspects that were subsequently magnified in the post-Roman world.



8. The Magics of Africa, Australia and the Americas

War engenders some of the most heightened human emotions – of fear, hope, love of one's own group or hatred of the enemy. It is no surprise, then, that war has often helped to create special forms of magic. War magic, sometimes known as assault sorcery, is common in many parts of the world, including South America, Africa and South-East Asia.¹ Such magic often developed as means of protecting people from colonial violence or allowing for hidden attacks on the colonizers. In the broadly post-colonial worlds of the later twentieth and twenty-first centuries these magical traditions have been mobilized to aid in new conflicts, where, as well as attacks on the bodies and properties of the enemy by physically violent means, their souls and spirits can also be assailed. Protective magic is commonly used to secure the souls and bodies of the group.

On the large Indonesian island of Sumatra, which became a Dutch colony after an invasion in 1903, a number of forms of magic are practised both in the colonial past and the present, one of which is known as *ilmu kebal*, which confers invulnerability on a person. A man named Depati Parbo from the village of Lolo in the Kerinci District around Mount Kerinci is said not to have been wounded in prolonged battles with the Dutch. Local people say that Dutch bullets made holes in his clothing but could not penetrate his body. Depati Parbo gained his protection through training in *pencak silat* (Indonesian martial arts) and studying with a local shaman. Meditation on a

nearby volcano brought his magical abilities to unusual levels, which he used to help resist the Dutch, unsuccessfully as it turned out. Female dancers also acquire *ilmu kebal* so that they can dance barefoot but unharmed on beds of nails, a sword blade or within a flaming fire.

Possession by ancestral spirits confers the necessary powers of invulnerability. In a more recent conflict, that of the civil war in Sri Lanka (1983–2009), one of the main insurgent forces, the Tamil Tigers, invented new practices, such as burying dead war heroes rather than cremating them. The dead were converted into ghosts and lesser demonic beings, having the power to aid the living in their wars. The Tigers also carried out protective actions, such as when men tonsured their heads or wore a vial of cyanide on a necklace that echoed the necklaces first worn by women when they got married. These actions, they hoped, would save them from harm. In the Tamil Tigers' case the necklace demonstrated a spiritual commitment to the cause, which could lead the wearer to willingly embrace death through a suicide mission.

Magics of these types drew on older belief systems, fashioning them in novel ways for new and challenging circumstances. Western writers, such as Tylor and Frazer, as we have seen, viewed non-Western magic as being pursued in ways strictly laid down by tradition. But for many of the parts of the world we will look at, colonialism was a major influence. During various forms of invasion, dislocation and dispossession, people fought back with all the means they could, creating in the process many novel forms of magic that combined older practices with newer aims. It is worth noting that in the West war also caused innovations in magic: in the First World War soldiers created many protective devices, including bullets with their name on them to deflect bullets aimed at them, and bullet crucifixes that also conferred protection. Such objects and many more were made just a few years after Depati Parbo defied the Dutch.²

While suffering many depredations of colonialism, people in the three continents of Africa, the Americas and Australia have developed a vast series of practical and philosophical reflections on what it means to be human. A huge variety of response is obvious, but the broad answer to the question of being human is very different from a Western notion: to be human is not to be separate or apart but intimately woven into the material and spiritual worlds, related to things in complicated ways. People do not live on or from the landscape but within it. For many readers, entering the

worlds of Africa, the Americas and Australia will mean subjecting our own common-sense views to scrutiny and trying to overcome our initial scepticism about how people might be related to rocks and other things. How might our lives unfold if we took such notions seriously? The idea of incorporating a rock into our family history is puzzling, but might be easier to accept if we think of a house occupied for many generations by the same family, a piece of land or a street on which related people have lived for some time. In such cases the human and the material might not seem so separate after all.

The indigenous inhabitants of Africa, the Americas and Australia have suffered hugely since the fifteenth century as a result of Western colonialism. The taking of land, mass death through disease, enslavement of huge numbers and the often deliberate disintegration of systems of order and belief have been common. And magic has been central to the rhetoric of colonialism: the division between the so-called modern and pre-modern was a belief in magic. For a number of centuries, but taking new forms since the writings of Max Weber, a crucial distinction has been made between traditional, credulous and unchanging societies who practise magic and the open, questioning and democratic cultures who do not. The negative load carried by magic has been used to weigh down African societies and indigenous peoples in the Americas, Australia and the Pacific among other places. Dynamic, vibrant societies were pushed back into prehistory on the basis of their magical beliefs to act as living fossils: earlier, and the word is inescapable, primitive versions of Europeans. The prescription to fight the symptoms and causes of this state was salvation through the bible and through science. Of all the physical and cultural depredations these groups have suffered, to be labelled magical might seem the least pernicious, but the effect of such labelling has been profound and far-reaching. A vast range of human behaviour has been ignored or pushed to the margins – the inventiveness and depth of which I can only sketch here – when it was often at the heart of social action.

I will consider each continent in turn, starting with Africa and finishing with Australia. So much could be said and I can provide only a taster of cosmological beliefs, within the contexts of their long-term histories.

Africa

In the Lower Court of the Pitt Rivers Museum, Oxford, is the figure called Mavungu ([Figure 8.1](#)), belonging originally to the Kongo people of Central Africa within the huge area of the Congo River Basin. Mavungu is a wooden figure, called a *nkondi*, known sometimes to Europeans as a nail fetish. Mavungu has a prominent face, open mouth and eyes with tiny pupils. One arm is raised. Its legs are red, and on the front of the body are two small boxes with mirrored fronts. It is the nails and pieces of metal driven into the body that are most striking and indeed disturbing. For the Kongo people who made and interacted with Mavungu, he was not an object but a type of person, able to act on and affect the world; another famous *nkondi*, called Mangaaka, was carried about in a litter like a chief. Like any person, a *nkondi* was seen as composed of a body and an animating spirit, which can potentially be transferred into another body.³

Nature spirits were one of four categories of powerful beings, which also include ghosts, human ancestors and ritual figures of various types (made from fibre, clay pots or wood), of which Mavungu is a powerful example. For the Kongo, water spirits can sometimes inhabit the human body, causing illness by virtue of their aqueous nature. Such inhabitation might arise spontaneously but was more likely to occur through the malign intentions of another person. To banish the spirit the witchcraft that caused spirit possession must be counteracted. A diviner is employed to instruct and animate a figure such as Mavungu, generally by driving a nail into his body but also through placing relevant substances in the boxes on the front of the body, which might include dirt from a grave or special medicines with magical properties. The mirrored front of these boxes allows the diviner to see within their reflections where danger might lie. Hammering a nail is the most dramatic aspect of this ritual, which can also include the power of punning language; for instance, the scrapings of a *kazu* nut placed into one of Mavungu's boxes would help him *kazuwa* (that is 'bite off') the witchcraft. Mavungu often travelled to the unseen land of the dead to entreat ancestors to intercede with the spirits, and on this journey his pupils become smaller; their disappearance meant that he had gained perfect vision of the dead within their realm.



Figure 8.1. Mavungu, an example of a *nkondi* (previously known as a nail fetish), from the village of Nganza, Kakongo, Democratic Republic of the Congo.

Each nail or metal plate driven into Mavungu represents a dispute, illness or difficulty. His body provides a history of the Nganza village and its social relationships, often fraught, as they are in many small communities. From a prosaic point of view Mavungu was an important technology for monitoring and correcting the temperature of human relations within an area. Through accusations of witchcraft, disputes and tensions were brought to a head and sometimes resolved. People adjudged guilty of being a witch

could legitimately claim to be the involuntary agents of broader forces, and these protests, if believed, could mitigate the offence considerably. The Kongo themselves would acknowledge that dimension of Mavungu's work but emphasize the spiritual aspects of all elements of human life, in which people were enmeshed in complex relations with ancestors, ghosts, nature spirits and ritual figures.

The Kongo world, of which Mavungu was an important and active part, was multidimensional, some aspects of which were visible to people and others not. Combining powerful things, which have some human aspect, with a variety of substances and a creative use of language helped people to navigate complex spiritual and ecological realms. Such complexity in the Kongo had a long colonial dimension when Mavungu was removed from Nganza village in the late nineteenth century. The Portuguese first sailed along the West and Central African coasts in the 1480s (it is possible but unproven that much more ancient voyagers from the north had made this journey in the persons of Classical Greeks). In 1491 King Nzinga of Kongo converted to Christianity. The Kongo kingdom was large and hierarchical, centralized on the monarchy and a powerful class of nobles, who extracted tribute from their provinces, including ivories, wood carving, textiles, copper, salt and later slaves (which fed into the burgeoning slave trade). King Nzinga's son took the name Afonso I (1506–43) and developed a mode of Christianity that mapped closely on to existing notions of spirits and deities in Central Africa in the fifteenth century. Christianity was probably not seen as a new religion but rather as a graft of external ideas on to an accepted structure of belief. Afonso maintained regular correspondence with Portuguese religious and secular leaders as well as with the Vatican. His son Henrique was sent to Europe to complete his religious training. The new Christian religion chimed with existing magic, as in both were ideas that the human world was surrounded and deeply influenced by the spiritual one. In many colonial situations magic and religion formed a powerful double helix.

Mavungu was, as we have seen, collected in the late nineteenth century, at a very different stage of Kongo historical development. Mavungu was confiscated in 1892 and acquired by a Portuguese trader, who then sold him to Mary Kingsley, the famous British traveller and explorer. Mavungu was said to be one of the three most powerful wooden figures in the Kongo. We do not know about the exact circumstances of collection, but the end of the

nineteenth century was a time when shrines and sacred places were being dismantled across Central and West Africa. The most infamous and shameful incident was the Benin Punitive Expedition in 1897, which led to the sacking of Benin City in response to an attack on some British traders, but it was also occasioned by (untrue) rumours of human sacrifices in shrines in the area. Many fetish figures came on to the market as a result of these raids, and one beneficiary was the artist Paul Gauguin, who bought two at the Exposition Universelle in Paris in 1889, subsequently adding paint and modifying them in other ways that were potentially shocking to the Kongo.

Mavungu was exhibited in Mary Kingsley's house in London, before being given to the Pitt Rivers Museum on her death in 1900 by her brother. Mavungu was initially exhibited in the Pitt Rivers Museum together with broadly similar figures from Nigeria, removed on various punitive raids on the 'opening up' of southern Nigeria in the 1880s. Such figures were taken by the British at the time to be instances of primitivism and barbarity on the part of local people. Barbarity was certainly in evidence in West and Central Africa at the time through the actions of the incoming colonial forces, not the local people.

Mavungu gives us a little glimpse of the complicated nature both of colonial relations and of local belief systems. From the fifteenth century onwards people around Africa started to negotiate new relations with pale-skinned outsiders, by adapting their own ways of life and also through selective acceptance of outside influences, such as Christianity. Early relations between local people and, first, the Portuguese and then other Europeans were relatively respectful and curious on both sides, at least between the upper echelons of these groups. Racially pejorative views had not hardened yet, perhaps taking racist forms only through the dehumanizing of Africans during the slave trade from the sixteenth century onwards.

European attitudes slowly changed again within the twentieth century. Here anthropology was influential, including one of the most famous works on magic: *Witchcraft, Oracles and Magic among the Azande* by E. E. Evans-Pritchard, which we have already encountered in [Chapter 1](#). Disputed events were put to the poison oracle (*benge*), the most powerful oracle among the Azande; by Evans-Pritchard's time in Azande land, the poison was administered to chickens (previously it may have been given to

an accused person). The poisoned chicken was asked questions relevant to the case in hand, and if it died within a certain period of time an answer was indicated. The question ultimately concerned witchcraft. To be a witch is an inherited state, one that resulted from a substance in the gut that can be passed down only from the parent of the same gender. The father of a son found guilty of witchcraft must themselves be a witch, having passed down the condition through the male line. Sometimes people can use their ability for witchcraft maliciously, while at other times it might be involuntary, prompting some people to apologize for harm they had inadvertently caused. In Evans-Pritchard's telling of witchcraft and the efforts to find out who was responsible for the actions, the oracle can be seen as a sensitive piece of technology for uncovering and resolving disputes and consequently for helping to regulate the politics of the village or region. The family of someone accused of witchcraft could employ their own ritual specialist to come up with a counter-finding, a mode of appeal. This might bring more relationships, grievances and disputes to light. On the death of someone found guilty of being a witch, it was an act of some kindness to cut them open and wind their intestines around a stick in an attempt to demonstrate that they were not in fact guilty, something that would come as a relief to all male members of their direct line.

Evans-Pritchard's work was important in that it contributed to the slow shift of Western mind-sets concerning other cultures in general, and issues such as witchcraft and magic in particular. He argued that the thought processes of the Azande concerning accident and death display as much logic and coherence as his own; they merely employed different starting premises. If all major sickness, accidents and deaths had a human cause through witchcraft, then one needed a mode of investigation that was generally believed but was also open to debate and more detailed questioning of individual results. The technology of oracles, of which there were a number, was generally believed to work but also was open to critical scrutiny, especially by those with a vested interest in questioning the result. In both the acceptance and criticism they attracted, the oracles were not very different from scientific approaches in the West. In both instances, they worked from core assumptions that were hard to critique, proceeding systematically and logically through the many and varied details of individual cases.

African prehistories and histories

In order to gain a broader view of magical practices across Africa, let us move on to a general consideration of trends across the continent and over longer periods of time ([Figure 8.2](#) shows a map of areas and sites mentioned in the text). The recent period has seen a complex grafting of local views of divination and witchcraft – which come out of longer African histories – on to the now ancient beliefs of Islam and Christianity. Each of these three strands involves creative human action, increasing considerably as two or more come together.

Human origins lie in Africa, going back to our earliest ancestors slightly over 7 million years ago, as we saw briefly in [Chapter 2](#). It is likely that the earliest forms of magic were practised there too, but for much of this time period the archaeological record provides us with little that we can recognize as magical. Forms of life more directly ancestral to those existing today started to come together around 5,000 years ago, although with great variety and constant change (see [Table 8.1](#) for a broad chronology).

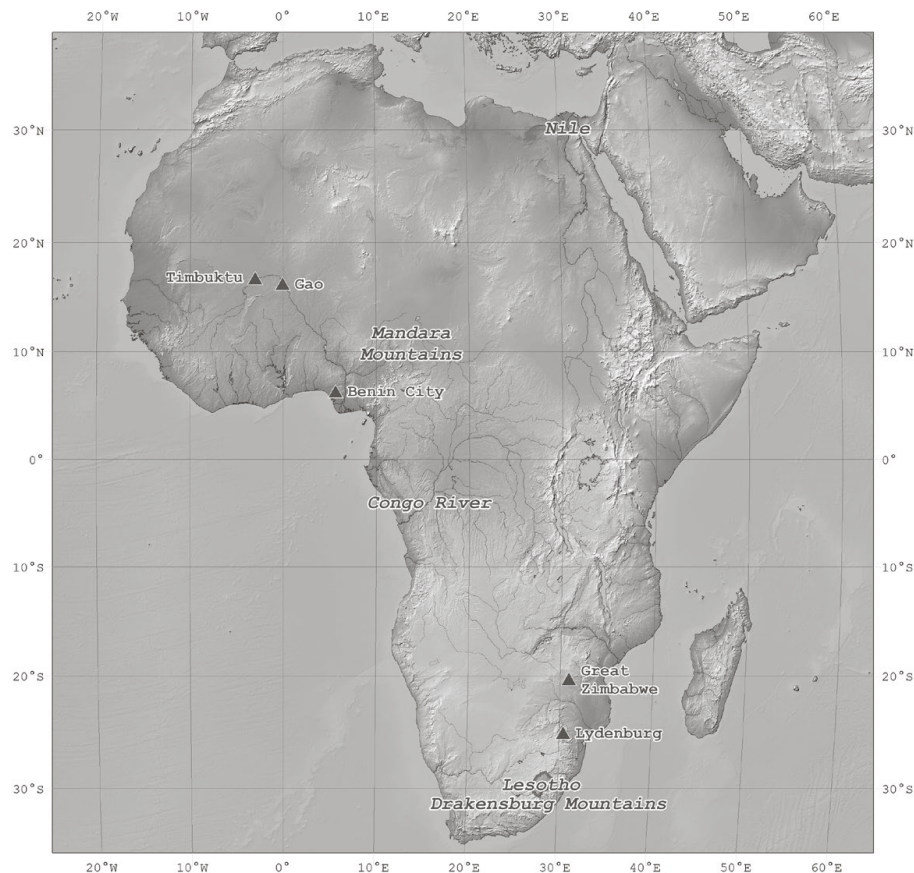


Figure 8.2. Map of the areas and sites in Africa mentioned in the text.

Date	Main periods	Events and processes
7 million–200,000 BCE	Lower and Middle Palaeolithic	Human origins through to the appearance of modern humans
	West Africa	
12,000–5000 BCE	Late Stone Age	Pastoralism and some early domestication. Origins of rock art that plays with relationships between people and animals
5000–3000 BCE	Early Neolithic	A mix of settled farming groups and pastoralists
3000–2000 BCE	Early Metal Ages	First use of copper and major migrations. Possible origins of magic connected with metalwork
2000–1000 BCE	Early Urbanism	First large towns, cross-Saharan trade
1000 BCE–500 CE	Iron Age	Growth of states – Nok, Ghana, Mali, etc. Possible origin of ancestral shrines and practices connected with them
500–c. 1480 CE	Medieval Period	Continuation of some earlier states, development of new ones. Islam from north and forms of magic connected with Islam

Date	Main periods	Events and processes
1480–1950s CE	European Colonial Period	Incursions of Europeans and incorporation into empires. Development of systems of divination, plus also Vodún which was taken with slaves to the Americas
1950s to present	Independence	Formation of nation states. Further development of divination and witchcraft

Date	Main periods	Events and processes
East Africa		
40,000–10,000 BCE	Late Glacial hunter-gatherers	New stone technologies. Highly mobile groups
10,000–2000 BCE	Holocene hunter-gatherers	Intensification of food production, rise in population
2500 BCE	Kingdoms in Horn of Africa and Red Sea coast	
c. 2500 BCE–present	Pastoralism	Herding of cattle prior to growing crops

Date	Main periods	Events and processes
c. 1000 BCE	Bantu expansions	Movement of Bantu speakers out of West Africa. Ironworking and possible origins of magic connected with metalwork
0 CE–present	Swahili coast	Connections between locals, Arab traders and connections across the Indian Ocean
1490s–1960s CE	European Colonial Period	Incursions of Europeans and incorporation into empires. Development of witchcraft, as found among the Azande and also divination
1960s	Independence	Formation of nation states – further development of witchcraft and divination

Date	Main periods	Events and processes
Southern Africa		
20,000–10,000 BCE	Late Glacial hunter-gatherers	Possible ancestors of Khoisan. Rock art through which people connect with the spirit world and play with their relationship with animals

Date	Main periods	Events and processes
10,000 BCE–present	Holocene hunter-gatherers	Intensification of food production, increase in rock art
First millennium CE	Farmers and herders	Ironworking and possible origins of magic connected with metalwork. Food production. Probable development of forms of divination
c. 700–1300 CE	States and cities	Rise of cities, best known of which is Great Zimbabwe
1490s–1960s CE	European Colonial Period	Incursions of Europeans and incorporation into empires
1960s	Independence	Formation of nation states: 1980 Zimbabwean independence; 1994 first democratic government in South Africa

Table 8.1. Broad chronology of Africa since the Last Glacial. Many areas do not have easily defined periods. The table is divided into West, East and Southern Africa to reflect some of the variability within the continent.

Africa exhibits many of the world's environments in microcosm. The relatively higher plateaus in East and Southern Africa are generally arid or semi-arid. The Sahara, the world's largest area of desert, in fact shows much subtle variation, as well as cycles of wetter and drier conditions. West and Central Africa are generally hot and humid, supporting some of the largest areas of rainforest in the world, particularly in the massive Congo

Basin, bordered by deserts to the south, as well as the varied Sahel to the north (the Sahel is a border zone between the Sahara and the savannah to the south, stretching from the Atlantic to the Red Sea). The deep history of African ecologies has yet to be written, but we can see much change even over the last 10,000 years, with cycles of wetter and colder periods alternating with hotter and drier. The periodic greening of the Sahara has been interspersed with times of true desert, in recent periods the result of a combination of climatic change and human impact on the environment.

The two great oceans bordering the continent, the Indian Ocean and the Atlantic, are very much part of Africa's history, as Africa is part of theirs. Over the last 5,000 years, at least, people, plants and animals have moved from South-East and mainland Asia into Africa, balanced by a counter-flow out of Africa of plants, animals and mineral resources. From around 2,000 years ago Rome started trading with India, but this was predicated on much more ancient links with Africa. The black Atlantic came into being over the last 500 years, initiated by European colonialism and the slave trade but with Africans as active partners, something we have already glimpsed from the history of the Kongo.

The later prehistory of Africa shows marked differences to other parts of the world. In the recent period we can see groups who are hunter-gatherers, living from wild resources in either deserts or rainforest; and mobile pastoralists, specializing in sheep or cattle and often found in semi-arid conditions, such as the famous Masai; and settled farmers, living from a great variety of crops, many of which were domesticated within Africa itself. These ways of life come together from around 5,000 years ago. Metals were important in many areas, but we often see a different sequence to Eurasia, where long experiment with a variety of metals led to people making objects in copper, then bronze, with ironwork coming later; in Africa people started working iron first around 500 BCE, quite possibly as an invention within the continent, not drawing on techniques from outside, and then going on to bronze and gold. Metalworking, as we shall see, has given rise to a distinctive set of magics. Over the last thousand years cities developed across the continent, with a great range of city-states and kingdoms in West Africa and in the Sahel in the centre of the continent, with Great Zimbabwe, which gave its name to the country, in the south-east ([Table 8.1](#)).

Two of the world religions have deep African histories. The Arab conquest of Egypt in 642 CE established Islam in North Africa, from where it quickly spread along the northernmost border of Africa, replacing other religious communities, such as Christians. By the early ninth century CE Islam reached down the East African coast and across the western Sahel; traders across the Sahara to places like Gao and Timbuktu to the south brought Islam there by the twelfth century. In all areas Islam took on a local colour and exhibited considerable variety. Islam also gave rise to a great range of magics, from protective devices such as the Evil Eye and the Hand of Fatima, to the placement of pots, bones and other substances under thresholds and doorways to prevent evil entering a building, often a domestic house. Christianity was introduced into Nubia and Ethiopia between the fourth and sixth centuries CE, with its own vernacular architecture influenced by local forms. Christianity has a long and complex interaction with Islam in these areas, not always antagonistic, with both religions in the Horn of Africa developing very active cults of Christian saints, which had their own statues and shrines able to work miracles. As we have seen, from 1491 onwards European forms of Christianity were introduced into Central and then West Africa, where they have interacted with local forms of belief ever since. Africa demonstrates many strands of belief, which weave together across the continent in complex patterns from which people have drawn selectively over many millennia.

Glimpses into the history of African magic

One of the oldest and longest practices of magic is through rock art, which goes back at least to the Late Ice Age in Africa and in some areas is still being made today. It has been estimated that 50,000 rock art sites have been recorded across Africa, with a further guesstimate that this might represent some 10 per cent of the overall total. Our understanding of rock art is increasingly based on local belief systems and not outsiders' modes of interpretation. Attempts to embrace current local forms of thought help to shake us out of our common-sense understanding of the world, but run the risk of not grasping the nature of past practices.

Although rock art is widespread, there are several areas that have seen intensive study and discussion. One of these is the art of Southern Africa and Lesotho, which is striking in its own right, but its interpretation has

been enlivened, and given extra depth and controversy, by using accounts by Khoisan people, often from the nineteenth century. It is thought that the art of places like the Drakensburg Mountains has been produced by Khoisan speakers over the last two millennia at least, at a time when these hunter-gatherer groups had often tricky interactions with incoming herders and farmers from the north. The Khoisan are speakers of the so-called click languages, where the clicks are rendered now by exclamation marks. A number of Khoisan, including two men called Qing and Diä!kwain, talked to interested Westerners in the nineteenth and early twentieth centuries. Their accounts and the Western renderings of them are debated, but nonetheless provide a small window into a different world. For the Khoisan the paintings were not depictions of people and animals, but attempts to bring them to life. The act of painting was important, rather than the finished images. Painting was often part of broader sets of performance, such as song, dance and storytelling, designed to address important problems such as hunting, bringing rain to an area, tackling issues of human fertility, as well as relationships between the Khoisan and local farmers. Painting was a way of getting things done, of penetrating beneath surface appearances to the underlying nature of things; there are indications of broad notions of power among the Khoisan – for example, the fat of animals (maybe snakes in particular) gave a potency that went way beyond any nutritional value. Certain human individuals had social roles and these included healers or sorcerers (who could be good or bad) (!*gi:ten*), those able to control game (*pwaiten-ka !gi:ten*) or rain (!*khwa-ka !gi:ten*), as well as malevolent individuals intent on harm (!*gi:ten*).

David Lewis-Williams has described these people as shamans,⁴ which is not a description I find especially helpful, given the differences between these people and those called by this name in Siberia. However, it is clear that what we see as the spirit world and so-called reality is blurred for Khoisan people in interesting ways. Rock surfaces might have been seen as the meeting points of two worlds, so that painting was making visible the spirit world surfacing in the rock, bringing the power of that world into our own. Whereas we see rocks as the most solid of all materials, for others they might be a screen on which other worlds are projected in order to tackle problems that cross worlds (which is most of them). Lewis-Williams has also argued for the power of altered states of consciousness: everyone in Khoisan rituals, but especially the ritual specialists, went into trances by

taking drugs, but also by dancing for many hours with little food and water. For Lewis-Williams this helps to explain how and why various versions of reality are possible: in certain states we may all see ghostly presences and emanations not so easily accessed in everyday life; seeing is believing, so the sensory evidence of spirits makes them accepted. This is a very powerful point, but we should also acknowledge that culture generally helps to develop and offer up varied versions of reality that people accept as part of their common-sense understanding of how the world works. Powerful and periodic experience reinforces general beliefs, but it may not be the sole source of them.

Rock art was practised not just by hunter-gatherers but also by pastoralists, in a huge arc from Egypt down into Libya, Mali, Algeria and up to Morocco, with a possible 100,000 incredibly beautiful depictions of people and animals ([Figure 8.3](#)) in which female figures were important, for instance, as origins of fertility and fecundity. Art is best seen as a form of making, rather than as a set of images to be contemplated at leisure, rendering rock art a powerful and pervasive mode of magic.

Many other obviously productive activities were surrounded by important sets of magical beliefs. The Mandi people of Mali hold a notion of *nyama*, a vital energy or heat that pervades all things. Firing clay to make pots is to infuse extra *nyama* into them. Grinding down old pots to incorporate them into new ones is not a purely technical act, which changes the properties of clay in beneficial ways, but rather a means of recycling the power of the ancestral pots into present generations of containers. Food from such pots contains traces of ancient potency as well as modern effort. The last 2,500 years have seen traditions of making clay masks or figurines in broadly human shape, going back at least to the Nok figurines from Nigeria, around 500 BCE. A striking set of seven heads modelled in clay were recovered from Lydenburg in Transvaal, South Africa, where they were buried together around 500 CE, making them the oldest human sculptures in Southern Africa ([Figure 8.4](#)); the heads are hollow, and two of them are large enough to be worn by children at least, raising the possibility that they might have been used in initiation rites. Carefully styled hair and possible indications of scarification (common in later periods) might indicate a particular cultural background, of which we otherwise know nothing. Their coating in hematite crystals would have glistened either by daylight or firelight, creating an image of compelling performances.



Figure 8.3. The human figure in an eared cap holds the horn of an eland, which is presenting itself 'nicely' as a target to be shot (Free State Province).



Figure 8.4. One of the larger heads from Lydenburg.

Figurative traditions are mainly known in clay, as wooden sculpture rarely preserves archaeologically. It is possible, although speculative, that traditions of clay figurines, such as those known from the state of Jenné-Jeno in Mali between the eleventh and fifteenth centuries, were part of broader traditions leading to the wooden nailed figures, such as Mavungu at the start of the chapter.

The idea that the Lydenburg heads were used in initiation derives from the importance of all rites of passage across Africa in recent periods and, we guess, in all periods of the recent past. Ancestors are central to very many African societies. Making an ancestor is a crucial process and not one to be taken lightly. An ancestor is a generalized and powerful figure, able to intercede on the part of the living with spirits and deities. Such a process of intercession is complicated and drawn out. To make an ancestor means to strip a person of their individual personality and traits, something that happens in any case as they recede from memory and those who knew them die themselves, but it is also something that requires work. Ancestors must

be linked with powerful forces controlling fertility and well-being. For instance, in Cameroon's central Mandara Mountains, all groups have ancestor cults; here the form of a grave has broader connotations, with the bell- or flagon-shaped tombs of the Kapsiki or Kamwe people signifying variously huts, granaries, pots or the uterus, so that an individual becomes an ancestor through modes of fermentation, germination, gestation and birth, giving them in turn some power over these aspects of the world. Death is not a passive or null state but a new mode of being active, connecting too with the vitally active elements of local life.

In some areas there are shrines to the ancestors. Among other groups, such as the Tallensi of northern Ghana, a variety of shrines and sacred groves were created and curated as places to connect with the ancestors and the spirits of the Earth. There are shrines in or near villages, with a central earthen pillar built around important personal items associated with an ancestor, or with personal items hanging from them, which might include skulls or jaw bones. Elements of practice connected with the Earth often involve natural features, such as caves and springs but also groves tended by people. Some groves, such as the Nyoo Shrine, also have standing stones that were erected at some point beyond present Tallensi memory,⁵ together with whole or broken pots. Scientific dating shows that activities at the Nyoo stones go back to the third century CE, with later arrangements of stones made in subsequent centuries. The shrubs and trees may also have been planted or encouraged to grow. It is possible that such shrines have been in use for over 1,500 years, although it is likely that their significances have changed, as have the acts carried out at them. Ancestors beyond the reach of memory are compressed into such shrines, in a manner not dissimilar to the weight of history felt in an old church, synagogue, temple or mosque. It is possible that some of the older shrines have sent materials to other shrines, perhaps exporting forms of performance and intercession with various ancestral and other powers along with stones and other materials.

The end of life as we know it is important and so too is its beginning, both through the generative energies of sex but also the act of birth. One of the most powerful of material transformations, the smelting of metal, can be linked directly to the creation of people. As we have seen, ironworking starts before that of bronze and gold, with iron metallurgy established in West Africa by 500 BCE. As an act of transformation, particularly through

smelting, where iron is removed from the rocky ore, ironworking often combines humans and things. In many areas, metalworkers today are male and furnaces constructed as female: among the Chisinga people, for example, furnaces are the smelters' wives and while engaged in smelting the men must abstain from sex with their human wives. The Shona of Zimbabwe and other areas of Southern Africa construct furnaces with breasts and navels, as is also found in far-away Togo, with the Bassari. The hot activity of smelting is linked with sex. In both cases the miracle of new creations is possible. Women and children are now often excluded from places where smelting is taking place.

Because of their ability to control powerful forces of transformation and destruction, metalworkers often have an important role in society generally, being called upon to perform magic in a variety of areas. Almost universally smelting is seen as a dangerous activity in a spiritual as well as in a physical sense, taking place outside settlements. Interestingly, smithing, the practice of hot working or casting metal, is not fraught with the same dangers as smelting (although the risks of fire are at least as great). Throughout the continent men are often metalworkers, while women make pots, each activity redolent of a series of other powerful acts of production and consumption important in all societies, from the care of animals to the processing and cooking of food.

Various items are associated with smelting and smithing, such as this object, known as an *ikenga*, or personal god, from the Igbo people of Nigeria, which consists of a stylized figure with metal horns.

This *ikenga* is a human figure with ram's horns, holding a knife and an elephant tusk. Forms of *ikenga* vary, but horns are usually present, and they are often small so that they can be easily carried. This particular *ikenga* seems to have had some significance to blacksmiths: the collector reported that they had been described to him as 'blacksmiths' mascots' and would bring financial prosperity as well as protection from evil forces.



Figure 8.5. An *ikenga* figure of the Igbo people, Nigeria, from the Amobia area of Awka – a city famous for its blacksmiths. *Ikenga* figures depict spirits that were the embodiment of personal achievement, strength and power for the Igbo, including in blacksmithing. The figure celebrates the power of the right hand, in which is held a knife; an elephant's tusk is in the left. The ram's horns further indicate power and

fierceness. *Ikengas*
need to be fed and
given kola wine,
especially when
tasks requiring
strength are
contemplated.

We have already seen many instances of divination, and African groups have developed very many ways of foreseeing the future ([Figure 8.6](#)). Across the continent exists a great spectrum of modes of divination, from the high formality of the Iba of the Yoruba to the variable practices among the Kuranko across West Africa.⁶ Generalization is difficult, but a few common features stand out. Diviners often feel they have been picked by some external power, perhaps through a message coming in a dream: it is not a vocation they have chosen. Similarly, they often sense strongly that the advice given to the client does not come from them but from some other power, typically a spirit or a god. Being a conduit is thought to remove any subjective element; thus, the diviner's knowledge of the politics of the village or community should not play into what they say. If the outcome of a divination was incorrect, this might be because the diviner has misinterpreted the message, or perhaps witchcraft affected the process, or, very occasionally, the maliciousness of the spirit consulted resulted in a misleading answer. Incorrect divination does not lead to the system as a whole being called into doubt, any more than an occasional misdiagnosis by a contemporary doctor would cause us to abandon modern medicine. The outcome of a divination means the diviner will recommend a particular form of action to the client: that they make some sort of sacrifice or undergo a ritual of purification. Failure to follow such a recommendation fully, correctly and promptly might also lead to a bad result. In some areas diviners are twins or pairs, ideally male and female, or a single diviner may adopt androgynous habits and dress, possibly to combine male and female power.

Ifá Divination among the Yoruba of Nigeria is among the most formal found anywhere in Africa and training for it is exacting. Ifá is also practised in the Caribbean and South America through the Yoruba diaspora, which came about primarily through the slave trade. Training in the divination starts when young and involves learning a vast body of oral lore called *ese Ifá* ('the wisdom of Ifá' – in some interpretations Ifá is seen to refer to a

deity, in others to a body of lore or learning). Advice might be sought from the spirits on affairs of state – for example, the types and nature of sacrifices made by the king at an important ritual event, as well as who should receive the results of these sacrifices. Ifá can also inform on the conduct of regular rituals or throw light on everyday problems.

The main technique of Ifá involves throwing down a chain with palm nuts attached in an arc, so that four nuts fall on the left-hand side of the chain and four on the right. The nuts fall either face up or down, resulting in 256 possibilities known as *odu*. Each *odu* has its own name. Many verses (*ese*) are attached to an *odu*. In some versions of Ifá, the diviner will recite a selection of *ese* relevant to the configuration of nuts in that particular divination. The client picks those that are helpful to their problem. Ifá Divination has a complex mathematical basis, given the many possible combinations of nuts; and whatever the number combination conveys is then expressed in words. An app has now been developed laying out all 256 *odu* and some of the verses attached to them, which are chanted by the priest in poetic forms of language, drawing on issues of history and contemporary politics. In 2008 UNESCO added Ifá Divination to its list of humanity's intangible heritage.

Divination, which is widespread in Africa, tries to predict the future; as ever, prediction is difficult, but well-developed methods are found. Oracles, such as the poison oracle of the Azande, attempt to probe the past. I turn to the Baule and Guro of Côte d'Ivoire for my final example, a Mouse Oracle vessel. Among its external decorations are a porcupine tail and red duiker horns – from creatures who are both silent and nocturnal (another frequent characteristic of creatures linked to divination). It is believed that mice 'never lie' and that they hear the 'sounds of the Earth'.

Mouse divination is a complex enterprise ([Figure 8.7](#)). A mouse is captured and placed in the bottom chamber of a metal container. The top chamber holds the divination device: a small tortoise shell with ten chicken-wing bones, bat-wing bones or sticks. Of the ten bones, the five on the left represent living human types, while the five to the right stand for ancestors and various dangers. Among the neighbouring Yohure, it is said that mice lost their voices, so they can communicate only through the bones. Corn kernels are scattered in the dish and the top is replaced on the container. The mouse crawls up to the upper chamber and eats some corn, thereby rearranging the bones. The top is removed and the diviner reads the

resultant pattern. In other areas crabs produce patterns to be read by the diviner ([Figure 8.8](#)). Examples of silent animals in divination are common. The Dogon live in villages set along the plateaus and against the high cliffs of central Mali. At dusk, diviners prepare complex grids of symbols in the sands at the edge of the village; corn kernels are scattered over the diviner's diagram. At dawn the next morning, diviners return to read the patterns of the fox's paw prints for the oracle's answers to their questions. Note the liminality in space and time – a common feature of many African divination systems. Divination occurs neither in the day nor at night; neither in the village nor in the bush.

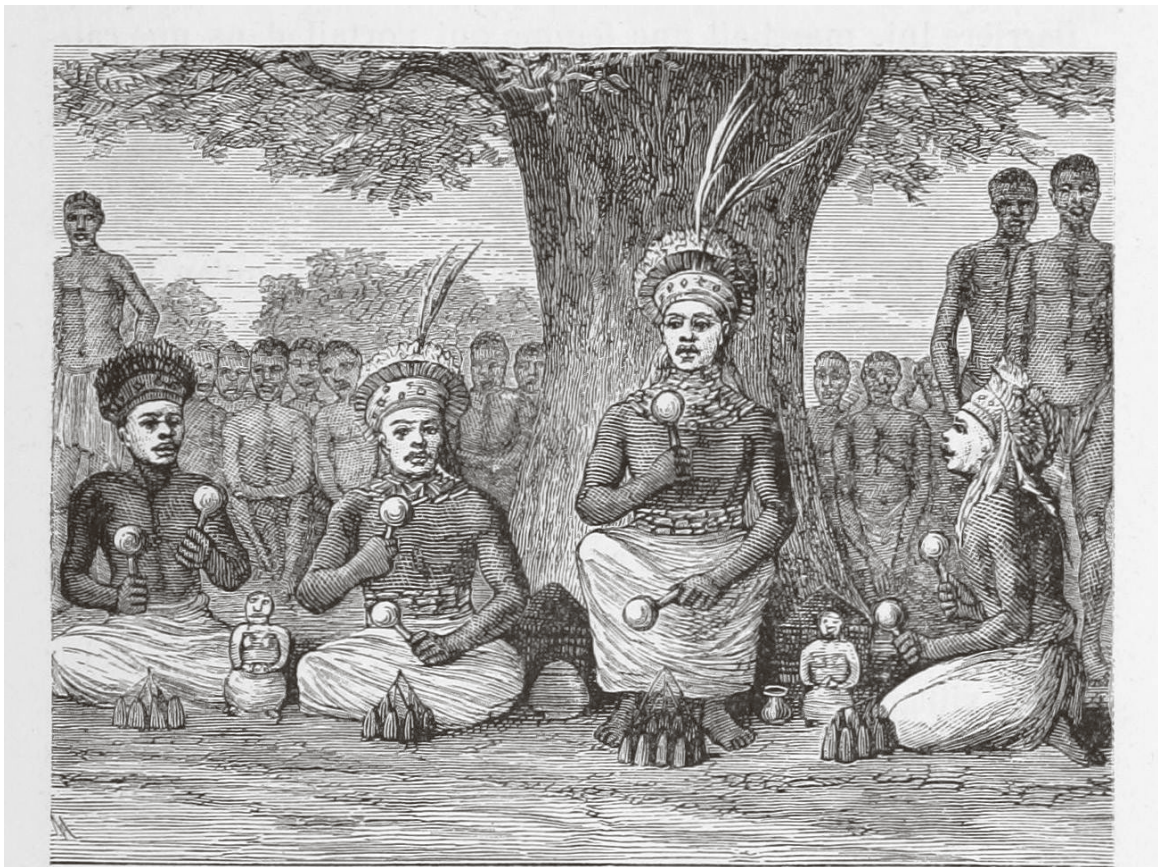


Figure 8.6. Engraving of late-nineteenth-century Luba Bilumbu diviners, Democratic Republic of the Congo.



Figure 8.7. Baule Mouse Oracle, Côte d'Ivoire (1990).

Almost simultaneous with the Portuguese movements down the western coast of Africa was the first voyage by Christopher Columbus to the Americas in 1492. New connections were subsequently made across the Atlantic between West or Central Africa and South or Central America. Such connections, facilitated physically by wind and current, were given new shape by the introduction of sugar cane (originally from Papua New Guinea), to be grown in small plantations on islands off the African coast but then in much larger establishments in the Americas. To this day sugar requires a great amount of human labour to plant, harvest and process. From the sixteenth century onwards Africans were sold into slavery and transported across the Atlantic. They took with them African plants and customs, with slave traders also bringing back South American foods, such as chillis, tomatoes, potatoes and corn to West Africa. The exchanges of the Black Atlantic importantly included belief systems, the most famous of which was Vodún from West Africa: this gave rise to various religions,

including Haitian Vodou. Less well known but also important is the set of beliefs called Candomblé, a more obviously syncretic mix of Catholicism and African practices, important now in Brazil and elsewhere in South America.



Figure 8.8. A man practising *nggàm* – interpreting the changes in position of objects caused by a freshwater crab to predict the future (Rhumsiki, Cameroon).

It is to the Americas we now turn, with its influences from Siberia early in its human history, and from these African connections many millennia later.

The Americas

Across the Americas, past and present, north, central and south, people have explored human immersion in the world, teasing out skeins of connections between things we would see as living, and those we would not. Such views often go by the term ‘animist’ and run through much of the magical thought of the Americas.

The American continent represents the longest north–south land-mass on Earth, stretching from the Arctic Circle in Alaska and Canada down to sub-Antarctic conditions in the south (see [Figure 8.9](#) for a map showing topography and sites mentioned in the text). This latitudinal span means most of the world’s ecologies are represented, from northern ice sheets to the tropical rainforests of Central and South America. The great cordillera running down much of the west coast increases this diversity, with both the Rocky Mountains and the Andes demonstrating a great variety of flora and fauna, including cloud forest and high grasslands. The western mountains also mean that many of the largest rivers run broadly from west to east, including the Amazon in the south and the Mississippi in the north, which represent two of the largest river basins on Earth. North America also has a mountain chain along much of the east coast, enclosing the central plains that range between grassland and desert. The plants and animals of South America still bear the influence of its origin within the great continent of Gondwanaland (comprising also Antarctica, India and Australia).

The natural diversity of ecologies within the Americas has been influenced by human action over at least 15,000 years of burning, clearing, planting and hunting. It is most likely that people walked into North America from present-day eastern Siberia, which was inhabited from at least 21,000 BCE, with distributions of beautifully made stone tools in the shape of leaves covering north-eastern Siberia, Alaska and western Canada by 15,000 years ago (see [Table 8.2](#) for an overview of chronologies). Glaciations producing periods of lower sea level have created a land bridge across the Bering Sea (so-called Beringia) at least four times in the last 60,000 years, and this has led to migrations of a range of animal species from Asia to America. People may well have come as part of one of these pulses.



Figure 8.9. Map showing the topography of the Americas and sites mentioned in the text.

Hunting would have been important in early periods, and dangerous, with sets of large animals unused to humans. Hunting, mainly of bison, became more deadly for the prey after the seventeenth century, when native people were introduced to the horse and rifle by Europeans. In between, plant foods were crucial, and it is said that some 40 per cent of the world's plant crops grown today – including potatoes, sweet potatoes, types of beans, tomatoes, maize, chilli, peppers and chocolate – originated in the Americas.

Date	Period	Events and processes
North America		
Possibly 15,000 BCE	Pre-Clovis	Debated early occupation
c. 11,500–9500 BCE	Clovis and Folsom	Earliest accepted occupation – mammoths disappear at end of Folsom. Did early

8000–1000 BCE	Variety of regional periods	migrations bring shamanism from Siberia? Great differentiation of ways of life. Large centres like Poverty Point and intense ritual life
1000 BCE–1492 CE	Great regional variety	Variety of ways of life, some high populations, large ceremonial and settlement sites, ethnographically known art styles develop. Interest in astrology and astronomy
1492 CE–present	Voyages of Columbus, start of white settlement	Dispossession and death of indigenous inhabitants on a large scale. Range of magical practices, often blending indigenous and African forms. Widespread animism

Date	Period	Events and processes
Central and South America		
Possibly 15,000 BCE	Pre-Clovis	Debated early occupation
15,000–7000 BCE	Hunter-gatherer groups	Variety of local lifestyles emerge
7000–2000 BCE	Start of domestication of plants and animals	Settled village life starts to emerge
2000–1000 BCE	Movement towards states in Mesoamerica	Emergence of monuments and large settlements. Intense

		ritual and magic around pyramids and ball courts
1000 BCE–1492 CE	Succession of states – Olmecs to Aztecs and Maya. Inka in Andes. Large populations in Amazonia	Complex settlements, monuments and material culture in a number of areas. Probable emphasis on animism but also human sacrifice and pain. Augury and divination important
1492 CE–present	Variety of European colonizing groups	Mass death of local inhabitants, collapse of local state forms and the loss of much land. Development of new magical forms under influence from Africa. Widespread animism

Table 8.2. Broad chronology for the Americas, from human colonization to white settlement.

Once the continent had filled up, after the initial migrations and population rise, movements continued internally. The great diversity of languages within the Americas indicates both local differentiation and complex movements, so that, for instance, California has eighteen language families (compared with four in Europe) and some seventy-four languages. Different centres of cultural gravity formed, which united peoples of different languages, often around the creation of early states or empires; different groups were brought together in what became the Inka Kingdom in the Andes, and the various states of Central America from the Olmecs to the Aztecs forced various groups together. It is possible that less forced conglomerations occurred in the pueblo groups of the south-western United States and the Mississippian peoples to name just some. Influence then flowed back and forth, so that connections from Central America from the

Olmecs onwards were felt in the American south-west and the Mississippi Basin, with Central American pipes and stone carvings reaching as far north as the Great Lakes. Surprising discoveries are still being made: for instance the mounds of the so-called Marajoara group, built for cultivation and for ritual activities from 800 to 1400 CE near the mouth of the Amazon, a group unknown in oral histories or legends prior to archaeology taking place. There was possible outside influence from Pacific Islanders from 2,000 years ago, sailing from Easter Island to the Chilean coast. More definite evidence of Scandinavian links with Greenland down to the western Canadian seaboard exists from the late tenth century CE. But it is in the post-Columbian era after 1492 that massive disruption, land-taking and death occurred for native populations, and these encounters were profoundly ideological as well as physical, with global ramifications down to the present.

For many millennia it is likely that much human life was mobile across this huge continent. From around 3,000 years ago large centres of population arose in lowland Mexico, the American south-west and the Mississippian region. From 1200 BCE, both along the Mississippi and in the region of Mexico inhabited by the Olmec, large and carefully structured sites are found. The most impressive early example of such a site in North America is called Poverty Point in the Lower Mississippi Valley, although mound building itself goes back over 6,000 years. The core of Poverty Point covered an area of roughly 200 hectares, dominated by six concentric constructed ridges with houses on them, as well as five mounds ([Figure 8.10](#)). People lived on fish, deer and nuts among other things, so that settling down preceded full agriculture in this case.

Constructions at Poverty Point started around 1600 BCE, drawing on older traditions of mound building. Mound B and the ridges on which houses were built were constructed some 200 years after the site was founded, and then Mound A was erected in a swamp, which was difficult but showed an interest in basic substances, such as earth and water ([Figure 8.10](#)). There was a careful choice of sediments used to build the mound, which might have been thought to materialize myths of origin. Another striking feature of the site is the massive amount of stone for making tools, all brought into the Mississippi Valley, which lacked stone sources. Some stone came from 500 km and much from 1,000 km away, worked into both utilitarian and non-utilitarian items. These amounts were in excess of any functional need,

so we might think instead of pilgrimage, with people travelling to sacred places and bringing back materials such as fine stone, feathers and artefacts with connections to these places. The construction of Poverty Point represented a massive effort in making a complex cult centre, which housed people but allowed them to play with cosmology.

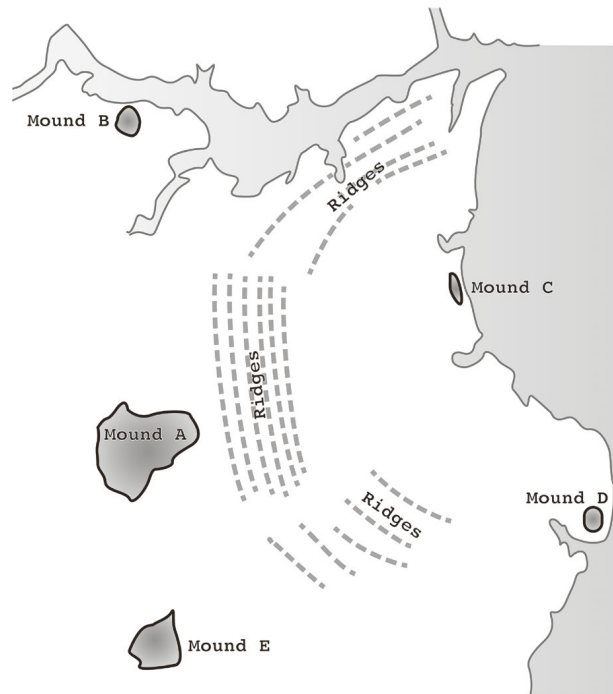


Figure 8.10. The site of Poverty Point, showing the main monuments and features.

At a similar time, just over 1000 BCE, people constructed complex features in the Olmec region of Mexico – the fluted pyramid at La Venta may echo local eroded volcanoes, with the site carefully aligned so that the plaza running from the pyramid is oriented to the north (the Olmec phenomenon is dated to 1200–400 BCE). Large basalt carved heads, ball courts, temples and natural places, such as caves and bogs, were linked together into a sacred landscape. A possible script has also been found, which, along with a complex artistic iconography, reinforces a complex set of beliefs. It has been said that the Olmec had gods, but these are better seen as sets of tendencies or powers rather than as clearly defined deities (we will see a similar situation with the later Aztecs below). Priests were able to mediate between the worlds of the sky, Earth and underworld, employing complicated ceremonies to aid them. Large sites were surrounded by Olmec

villages, supported by an agriculture based on maize, beans and squash, which itself was derived from many millennia of experiment. While the Olmec provided considerable inspiration for the later Maya, there is little indication of influence on Mississippian societies, which seem to have moved under their own historical impetuses.

Mesoamerican influence is more obvious on the US south-west (current national divisions are not helpful). From 1,800 years ago large numbers of settlements are found, as well as impressive ritual structures known as *kivas*. By 1,200 years ago some large sites were constructed, especially Chaco Canyon, reaching a peak 200 years later with a complex mode of architecture based on round structures. The so-called Great Houses have been compared with palaces and are quite different in organization and intent to later pueblos in the same area, even though both have a broadly religious purpose. The large complex at Paquimé flourished between 1200 and 1450 CE in present-day Mexico, and exhibited sophisticated symbolism combining elements of land and water, with many canals between earthen mounds. Plumed serpents in the art show the influence of Mesoamerica, as do ball courts, but local peculiarities occur, including the ritual killing of 300 scarlet macaws, which were probably bred for sacrifice, along with bush turkeys. Cosmological ideas did not exist simply as ideas in people's heads but were made actual, bloody and transformative through a nurturing and killing process that was reinforced by striking imagery.

Great effort has gone into investigating later Mississippian sites, not least the major centre at Cahokia in the so-called American Bottom near where the Missouri meets the Mississippi ([Figure 8.11](#)). Here the Monks Mound is the largest structure in ancient North America, only outdone in volume by the biggest Mayan and Egyptian pyramids or the First Emperor's Tomb in China. At Cahokia astronomical alignments are very striking, as are relationships with earth and water, because the site was constructed around a number of lakes.⁷ Dramatic ceremony and sacrifice are indicated by deposits of objects and people in the floors of abandoned houses, and by pits containing the bodies of young women, unlikely to have died together through natural causes. Cahokia was colonial, with similar sites found far to the north on the Mississippi, and this network of sites traded.

Cahokia itself was formed through a so-called 'big bang' around 1050 CE, when the site suddenly expanded from around 1,000 to 10,000–15,000 inhabitants. Why this happened is unknown. Cahokia lasted at its peak for a

century and in another hundred years was abandoned entirely, to be forgotten. It is probable that a hierarchical social organization existed there, with intense agriculture around the site, including fields of maize, squash and beans; much produce would have to have been stored to support the non-farming element of the population. Cahokia is a brief, dramatic and mysterious episode, but its rapid flourishing and decline are echoed elsewhere.

The northern part of the American continent from at least present-day Mexico to the Great Lakes has been criss-crossed by religious connections for the last 3,000 years or more. People took spiritual journeys, moving many significant objects of which the imperishable elements only really survive. Occasionally over this long period extraordinary centres have crystallized in the interstices of connections, with combinations of mounds, burials and water, and many people often carefully organized around celestial alignments, and therefore probably the change of the seasons.

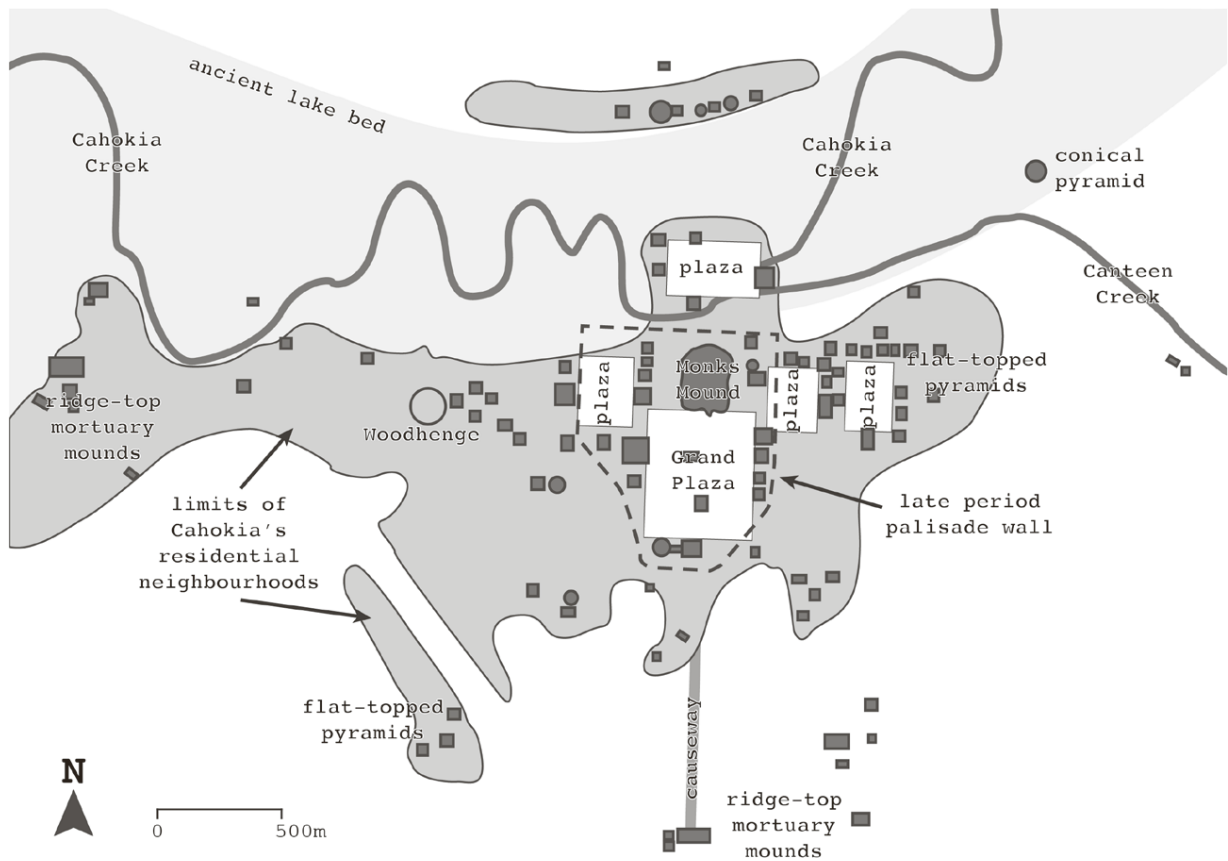


Figure 8.11. The main features and alignments at Cahokia.

Enormous amounts of physical effort went into sculpting the landscape, and in the absence of pack animals all the work was carried out by humans. Many of these communities were egalitarian and some were hunter-gatherers, which meant that work was undertaken through conviction and belief, not coercion, in many cases. Although sites like Cahokia have been long investigated, the staggering nature of further sites has only recently been appreciated, as has the totality of the phenomena: the sites and connections differ over space and time, but they definitely bear comparison one with another. The careful construction of mounds, using material selected from the local landscape, reminds us of the kurgans of Eurasia we saw in [Chapter 5](#), in the sense that people were carefully and materially mapping their landscapes, in the process bringing the important human connections of materials to the fore, particularly those with various forms of earth in Cahokia.

In present-day Mexico, just before the period of European colonialism, lived the people now known as the Aztecs. The Spanish rode up into the Valley of Mexico in 1519 and were staggered by the order and complexity of everything they saw, most especially the capital of the Aztec kingdom, Tenochtitlan. Lying behind the severe order of the Aztec world was a great intertwining of ritual, aesthetic and military practices. The Aztecs were the last of a series of great states in Central America, starting with the Olmecs (1500–400 BCE), whose stone sculpture, monumental architecture, rites of bloodletting and the Mesoamerican ballgame had strong ritual overtones. The Aztecs were immediately preceded by the Toltecs (900–1168 CE), seeing them as their cultural inspiration and to some degree their superiors in statecraft and art.

The Aztecs might have been a mobile people, arriving in the Valley of Mexico from the north in the twelfth century CE and settling around Lake Texcoco, where they founded their capital, Tenochtitlan, in 1325 CE. This became the largest of a series of city-states in the valley that were originally autonomous, coming under Aztec rule from the fourteenth century onwards. By the time the Spanish arrived in the valley in 1519, it had a probable population of a million people, and it is possible that Tenochtitlan itself had a population of 200,000 (Seville, then the largest town in Spain, had some 70,000 people). The city was built on a natural island, greatly artificially extended. It had a complex cosmological ordering: three causeways led from the shore to the island, on three of the cardinal points, and the city was

divided into four quarters by the processional ways leading out from the main temple precinct. These were further divided into twenty districts or wards (called *calpullis*, derived from the term in Nahuatl, the Aztec language). Each *calpulli* had a temple, a priest house, a warrior house and a 'House of Youth' for educating young boys and girls. Each *calpulli* organized local labour to maintain the streets and canals of the ward, and people worshipped in the local temples, with larger-scale observances in the central temples of the city.

At the centre of Tenochtitlan's grandeur was the main temple precinct, some 500 metres on a side, containing over eighty structures, housing the gods and the men and women who served them. Rising some 60 m from the centre was the Great Pyramid, on top of which were the twin temples to Huitzilopochtli, the God of War, and Tlaloc, the God of Rain. Behind this precinct was the major palace of the ruler, the *tlatoani* ('The One Who Speaks'), with buildings surrounded by gardens and pools, housing treasure brought into the city as tribute or war booty from across the Aztec Empire. The sacred cosmology materialized in this city was echoed in more modest forms in smaller cities, giving a coherence of belief and action across the Valley of Mexico and beyond.

Part of the problem of understanding Aztec beliefs and practices has been the influence of one document, *The Universal History of the Things of New Spain*, put together by the Franciscan friar Bernadino de Sahagún in the sixteenth century. This work (sometimes known as the Florentine Codex, after its best-preserved copy – a digital version of which is now online) was compiled starting around thirty years after the conquest. Sahagún had the help of Nahua men who had converted to Christianity; the text was in Nahuatl and Spanish, but there were also over 2,000 illustrations by Nahua artists. *The Universal History* provides a remarkable account of Aztec cosmology, culture, society and natural history, although all seen mainly through a European lens.

The invaders were famously impressed with many aspects of what they saw. Bernal Díaz, a foot soldier in Cortés's army, wrote: 'These great towns and pyramids and buildings rising from the water, seemed like an enchanted vision from the tale of Amadis. Indeed, some of our soldiers asked whether it was not all a dream', adding the poignant coda, 'But today all that I saw then is overthrown and destroyed; nothing is left standing.'

The Aztec state does have a dream-like quality, but the dream is a tough, demanding, disorientating one. It is difficult for many of us to imagine now what it would have been like to live in such a theatrical state, where ceremony and performance, often demanding audience participation, were the norm. The human body, alive or dead, was at the centre of ceremonial events. Bloodletting (dating back to the Olmecs or earlier) was commonplace – people would lacerate their tongue, ears or thighs with obsidian blades or maguey thorns to supply the gods with the human blood they craved. Larger supplies of blood were obtained from the huge number of human sacrifices, usually of war captives, in the central temples of Tenochtitlan. Officials would carry bowls of blood to the major statues of deities in the city and daub their lips.

How people related to cosmological powers was the crucial issue in the Aztec world. The powers of the Earth and the spirit world permeated each other, with a series of echoes between the human and the sacred worlds, with animals and people in the human world found in more powerful aspects in the sacred realm. In both the *Universal History* and Aztec texts there are names of gods, such as Cihuacoatl (‘Woman Snake/Earth Mother’), Huitzilopochtli (‘Sun/War God’) and Tlaloc (‘Rain God’). Whether gods existed in clearly defined form, as a fixed pantheon, is now doubted, and we should probably think more in terms of sacred forces, of linked qualities and bundles of interaction, sets of possibilities indicated by clusters of names. Images of gods show the sheer superfluity of their attributes. Huitzilopochtli was associated with the hummingbird, and sometimes depicted as such. When taking human form, he had a helmet with blue-green hummingbird feathers on his head; his face is black or striped and he holds the blue snake Xiucoatl in his hand ([Figure 8.12](#)). Xiucoatl, known as the turquoise or fire serpent, is a common element of Aztec iconography in its own right, and, when held by Huitzilopochtli, took the form of a spear thrower, or *atlatl*, with Huitzilopochtli’s spears linked to lightning. The royal diadem of Aztec rulers, made of turquoise, was the tail of Xiucoatl, and in one spectacular ceremony a paper version of Xiucoatl danced down the main pyramids with torches to represent his fire.

Huitzilopochtli also carries a mirror and shield decorated with eagle feathers (an eagle indicated where Tenochtitlan should be sited in the story connected with its foundation). In the main temple the statue of Huitzilopochtli was wrapped in cotton cloth, and decorated with gold and

precious stones. This stone figure was often treated as if it were the god rather than a representation of it. During Huitzilopochtli's main ceremonies in December little figures of him were made in amaranth and honey that were broken up and eaten by participants. There is also a complex class of beings known as *ixiptlas*, doubles or presentations of gods in the form of people, statues or breads, which were seen as active, enjoying some of the powers of deities. The human avatars of the gods were sacrificed at the end of rituals. The blurring of boundaries between various classes of entities, such as gods, stone statues, human beings or vegetable matter, is a vivid exemplification of the continuity of the universe across things we might consider to be inanimate, those living, including humans, and the divine. A considerable part of Aztec intellectual life involved following resemblances and transformations across the world, seeking out new links or significances that might be advantageous or ward off danger. Divine powers lived within the world, as well as in separate but linked dimensions.

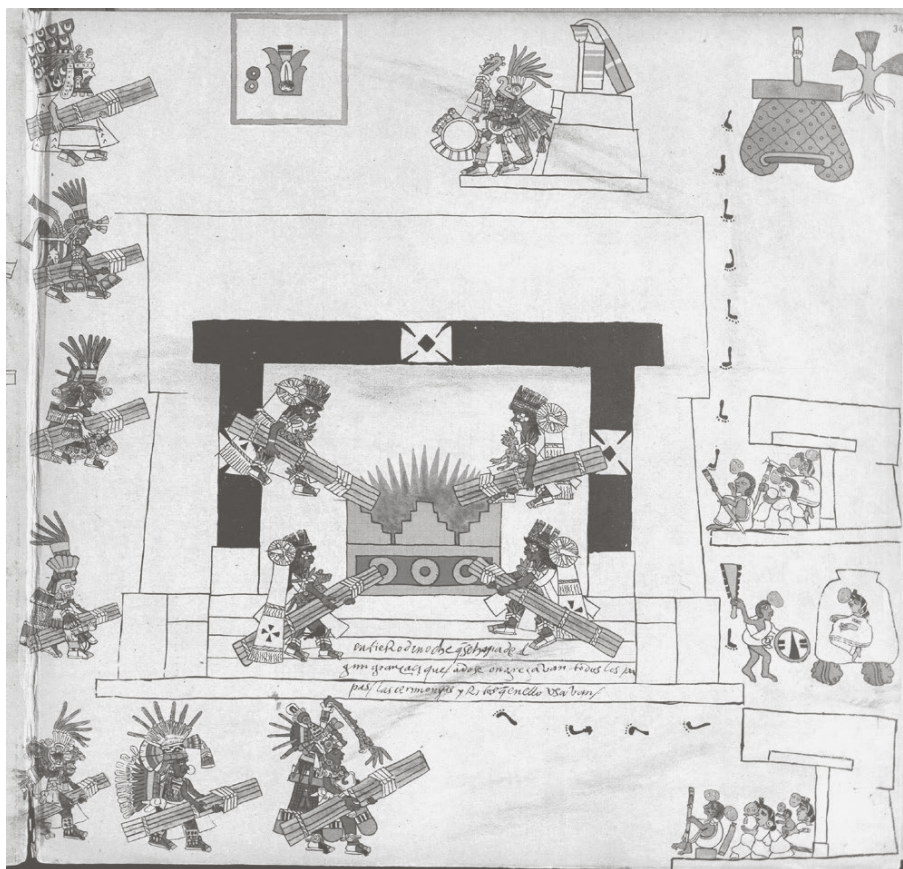


Figure 8.12. Huitzilopochtli, the God of the Sun or of War, shown in the top middle of this page. From the Codex Borbonicus.

As for so many peoples, scrying the future was important, if difficult. The Aztecs, like other Central American peoples, notably the Maya, developed a complex calendar with distinct cycles of time, which intermeshed in ways similar to that of Shang China. On the one hand was a solar calendar, the *xiuitl*, made up of eighteen ‘months’, each comprised of twenty days, ending with five inauspicious days. This linked in with the ritual calendar, the *tonalpoalli*, of twenty signs in fixed sequence connected with the numbers one to thirteen, giving names like ‘One Lizard’ or ‘Twelve Death’ to individual days. This provided the basis for the ‘sacred book of days’, the *tonalamatl*, which was used for augury. To make matters even more complicated, each day name and number was presided over by a particular deity. One outcome of such a complex system was a different conception of cause and effect: an event happening in a period preceding another was not necessarily seen as the cause of what followed. The two calendars completed their permutations over a 52-year cycle, known as a ‘Bundle of Years’. Days with the same name, recurring at long intervals, had similar characters and consequences, creating an echoing of similarities over long periods of time. The transition from one Bundle of Years to another was a dangerous and liminal time.

Priests carried out augury, for instance on the birth of a baby in order to say something about the course their life would take. But there were also many other ritual specialists (often called ‘sorcerers’ in *The Universal History* – this may be Christian bias, as there is every indication such sorcerers were officially sanctioned). Some were healers, but others divined the future or provided protection against forms of witchcraft. Augury or divination commonly employed mirrors, often from polished obsidian; bowls of water were also used, as the specialist attempted to discern elements of the future in the surface they contemplated. Mirrors have a long history in Mesoamerica, with early forms made from polished iron pyrites; iron or obsidian mirrors held links to the Sun, with connections to Huitzilopochtli. The name of the deity Texcatlipoca means ‘Smoking Mirror’ and when he is depicted one foot is replaced by a mirror, with another at the back of his head. The obsidian mirror was a metaphor for power and rule, with both obsidian and polished gold mirrors found in the Great Temple in Tenochtitlan. An Aztec obsidian mirror became part of the equipment used by the Elizabethan magician John Dee, employed for

divining the future and connecting with angels, as we shall see in the next chapter, a connection between two worlds of magic.

The variety of magics developed by the Aztecs was part of a long Mesoamerican history. The intellectual world of the Aztecs was not one based on abstract theory or general propositions about how the world works. Instead we encounter a densely material world, focused on the human body. The centrality of pain to much experience – it is impossible to imagine what it would feel like to pull a rope with small obsidian blades through a hole in one's tongue for instance – is deeply foreign to many of us now, when our bodies are anaesthetized against all forms of pain. Intense physical sensations impressed upon the body the reality of experience, together with its emotional and intellectual dimensions, making participation and magic part of that reality.

The bloody fall of Tenochtitlan in 1521 to Cortés's soldiers was an early episode in mass death and dislocation across the continent, which nonetheless did not wipe out native cultures, causing instead massive transformations. People came to understand new forms of belief, such as Christianity, through the lens of the old, so that the transubstantiation of gods and people into the form of bread to be broken found an accidental but powerful echo in the bread and wine of the Catholic Mass.

More recent magic: animism

Many people in the Americas live in a world in which everything is human. Animism in the Americas is best known among people who hunt and gather, but is found to some degree among all people throughout the continent. For many Amazonian groups, for instance, all things are human. Numerous mythologies posit an earlier condition when everything was human, including artefacts, streams, rocks and so on. Through various processes of estrangement, things came to look different, taking on a range of outward forms. This did not erase an inner humanness – what was important was not humans as a species but humanity as a condition. Furthermore, if all things fall within the social realm of the human world, there can be no distinction between culture (as the product of people) and nature (as the operation of non-human forces). Everything is at once nature and culture. A tapir or a jaguar sees its body as less important than the human core of its being. For a tapir its waterhole is full of manioc beer and

a fallen tree is its house; for a jaguar blood is manioc beer and so on. Conversely, an aggressive person, good at the hunt but more doubtful in the peace of the village, shows their kinship with the jaguar. A Western view sees bodily differences as critical; for many Amazonian people the form of the body masks an inner similarity across the whole world.

It should be noted, as an aside, that in Western views people are seen as animals, having evolved from apes (indeed our substance is seen as made up of atoms and molecules shared with other things, including those not thought to be living). However, we also have a soul or mind making us different in a moral and intellectual sense from all other animals. In an anecdote told by the great French anthropologist Claude Lévi-Strauss,⁸ in the early years of Spanish colonialism in the Americas missionaries wondered whether the Indians had souls, and thus whether they were fully human. Indians, in contrast, drowned captured Europeans and left their bodies to rot to see whether their bodies were the same as their own. It was possible Europeans had different, less corruptible bodies, maybe indicating that they were spirits. For either party, outer appearances might be illusory.

In all parts of the continent, philosophical questions were posed. The Ojibwa, who live to the west of the Great Lakes, on the border of what is now the US and Canada, consider all things to be persons, which might 'also appear in a variety of animal guises, as meteorological phenomena such as thunder or the winds, as heavenly bodies such as the sun, and even as tangible objects such as stones that we would have no hesitation in regarding as inanimate'.⁹ The most powerful of the non-human persons are the Sun, the Four Winds, the Thunder Bird (which takes the form either of thunder or a hawk) and the so-called Masters of all the animal species, who embody in refined and eternal form the qualities that are manifest in individual animals. Of humans, it is only the shaman who can transform from a human into an animal and return back again – and even for them this is a dangerous and fraught process. Non-human persons are referred to by the kinship term 'grandfather'. Grandfathers can aid humans, acting as a sort of spirit guide or protector; for a human to have power, they need such grandfatherly aid. The correct spirit guide was found by girls or boys in puberty, when they underwent a vision quest, through seclusion, fasting and prayer. Vision quests were practised widely across the Plains, taking slightly different forms in various groups.

When a human dies, their body will cease to work and will then decay, but their inner spirit will be reincarnated as an animal, or even more often as a bird. Bodies are seen as clothing; and clothes can give power to people – the dress of the shaman helps to make them magical. Conversely people also give power to clothes, the movements of the body bringing the clothes to life. In the languages of South America and the indigenous Caribbean, connections are made between words referring to clothes and to the body. In both cases, clothes or the body may hide an inner essence different to the outward appearance; but, also in both cases, clothes and the body can provide capabilities. For instance, a human in the body of a jaguar will be able to move as fast and as violently as any jaguar. To a lesser degree this might also be true of a person dressed as a jaguar.

Such ways of being seem foreign to many of us. But maybe they are not as foreign as all that: we give our pets names, see them as members of our families and consider that they have personalities of their own. In a more limited sense, things like cars may be named and known through their personalities, as might things we are very familiar with, such as a craftsperson's tools, which, while not named, might be understood as having individual characters. Fairy tales and other fictions featuring animals are seen not to be true, but are found useful nonetheless in working through aspects of what it means to be human. Indeed, different animals are regularly seen to embody human characteristics, so that the fox is cunning, the pig greedy and a dog faithful. Important fictions are wrapped around animals, helping us to understand not them but ourselves, which is not so far distant from an Ojibwa point of view.

Inanimate objects pose more of a challenge to us. Encoded within Ojibwa language is a difference between things that are animate and those that are inanimate. Irving Hallowell, who worked with the Ojibwa of the Berens River, Manitoba, as an anthropologist, recorded the following question and answer: 'I once asked an old man: "Are all the stones we see about us here alive?" He reflected a long while and then replied, "No! But some are." This qualified answer made a lasting impression on me.'¹⁰ Stones are grammatically animate in the Ojibwa language, as they are in other Algonquian languages, and Hallowell was keen to know why. In the Western view of the world we have come to categorize things on the basis of their essential and invariant properties – the universe can be divided into things that are alive and things that are not (with some boundary cases,

slightly tricky to decide, such as viruses). Ojibwa classifications have a different basis, deriving from experience. Some stones are known to have moved: Hallowell repeats a story of a stone that rolled around after its human 'owner' and had a mark like a mouth that could move in a way that mimicked speaking. Such a stone was clearly animate, whereas others might not be, or at least no one had ever seen them move. Careful attention was needed to sort out the things that were animate from those that were not – one couldn't decide on the basis of general classificatory principles. The Ojibwa term that most closely resembles 'living' or 'animate' is *bema.diziwa.d*, which can be translated as 'continuing in the state of being alive'. Presumably such a state could cease, or conversely things never thought to be alive could be discovered to be so.

This might seem a strange view to some outsiders, but the Ojibwa put less emphasis on classification and more on observation, which is also obviously important in other human traditions. Stones that move are part of the world that is active, growing and changing – they need to be understood as such. Again, while Western thought would find it hard to allow that stones move as such, we do recognize movement in all things at the atomic level (although most of us have no direct experience of the movement of atoms), and we also understand that continents are moving due to forces of circulation of the Earth's crust. In between these very small and very big movements, we all acknowledge that stones erode through water and wind, changing their form and possibly their position under the influences of such forces. For Westerners the concept of nature is important; for many in the world, including native Americans, it is not. Native people do not think they can know in advance what things can or cannot do. It is only by being with them and acting in concert that they find out. We may find this hard to accept for ourselves, but it seems also an entirely reasonable stance to take.

Does the world exist out there, at a remove from people, or does it exist within us and us within it? This is a large and crucial question posed by native American practices and philosophies, which generally give an answer stressing the interwoven nature of people and the world. Interweaving takes many forms: to get some sense of this variety, let us look more broadly across the Americas and at some of their histories.

Along the west coast of Canada and the US, from the border between Alaska and British Columbia down to the northern end of California, are found groups of people subsisting on wild foods, with salmon being

especially important, living in longhouses, exploring complex cosmologies and practising dramatic art. These cultural forms started to come together around 2500 BCE on the evidence of waterlogged sites at the mouth of the Fraser River, where weaving and basketry with some similarities to more recent forms have been preserved. From around 800 BCE the first indications of so-called formline art (that is art based on continuous flowing lines that define the shapes of things but also provide elements of their internal decoration) are found. The site at Ozette, Washington State, was covered by a mudslide around 1500 CE, preserving four plank-built houses and around 50,000 objects, some of which employed motifs found on later art from the Colonial Period.

The first contact with Europeans was when Captain James Cook's ships *Discovery* and *Resolution* stayed for a month in 1778 in Nootka Sound, on their way to see if they could discover the North-west Passage between the Pacific and the Atlantic. The societies Cook and his crew encountered were clan and lineage based, living in large houses in sedentary villages. It is estimated there were 200,000 people living along this 1,500 km of coast in the late eighteenth century, speaking around forty-five different languages in thirteen separate language families. The population was reduced to around 40,000 people by 1900, mainly due to European diseases, a microcosm of the depopulation of the continent, where reductions of 80 per cent or more were horribly common. Each clan or lineage had its own set of inherited images known as crests (which have been compared to heraldic devices), found on masks, boxes, ritual poles (sometimes known as totem poles to outsiders), cloaks and other objects. Crests were prompts for stories of clan origin, and in the long winters spirit dances were held to connect to the powers important to the clan. These were often led by shamans, involving story, song, dance and debate in traditions that might ultimately be traced back to the Siberian roots of American peoples. Important objects such as story boards had on them painted animal shapes and more abstract forms that helped to evoke and call up spirit powers. Some objects were so powerful they were ritually destroyed at the end of each ceremony. Winter ceremonies were part of an annual cycle, including the First Salmon ceremony, held to ensure that masses of salmon migrated from the sea and up the local rivers each spring. Also important were the competitive potlatches, where people destroyed large amounts of material to emphasize their wealth. Potlatches were especially important after the fur trade with

Europeans (aimed at both the Chinese and European markets) brought in new wealth.

Shamans had their own set of paraphernalia, and among some groups, such as the Tlingit, these reached a very high level of sophistication and included drums, rattles, ivory, bone amulets and, most importantly, masks that embodied spirits, including land otter, bear and devil fish. A shaman wearing a mask did not just resemble a spirit; they became that spirit, sharing its power. Shamans could communicate directly with animal spirits, urging them to attend to problems in the world of people. They could also heal the sick, under some circumstances, as well as discovering and banishing the witches that caused a variety of misfortunes. Southern groups, such as the Salish, who had influence in the inland areas, underwent spirit quests. It was possible for ordinary people to invoke their guardian spirits to aid themselves or the broader group, complementing the actions of the shamans.

Along the coast the raven was an especially powerful and influential spirit, being one of a number of trickster culture heroes found in North America, including the coyote on the plains and a figure called Nanabozo (a name with many variants) in groups such as the Ojibwa around the Great Lakes. Such figures may have aided in the creation of the world and humans, but they are also unpredictable and difficult, easily bored so needing fun, stimulation and mischief.



Figure 8.13. Haida carved and painted box in the Pitt Rivers Museum, Oxford. This is a bentwood box made from a single piece of red cedar, which was first steamed and bent into shape. A base and lid were then added. It is just over 1 m long and around 70 cm high. It was used to hold potlatch regalia for the clan and was collected before 1874, coming into the Museum in 1884 with General Pitt Rivers's original collection. The box has been the subject of study by a Haida group who visited the Museum – for more detail on this visit, see <https://www.prm.ox.ac.uk/haidabox>.

The box shown in [Figure 8.13](#) is a superb example of formline art, with designs that combine the abstract and the figurative. Starting at the bottom, we can see two hands with upright fingers, painted in red, with eyes in their palms. Between these hands is a representation of Kuugin Jaad, the Mouse Woman, the traditional guide for humans moving from their world into the lands of the spirits. The central upper element comprises a combination of faces and facial features. Immediately above Mouse Woman and within her panel is a down-turned mouth of blue teeth. In the panel above that is a nose comprised of two nostrils, flattened out, but at each end of the nostrils is a blue eye with black pupil. Above the nostrils, and bordered by an orange line with blue infill, are double eyes, which might belong to the nose below. But between each of the double eyes is a small orange dot above an orange border with red-hatched infill, so that the dot might represent a small nose and the red-hatched area a schematic mouth. Above the main nostrils is another larger orange dot, which could be seen as yet another nose. Left and

right of this panel are two faces in profile, with down-turned mouths and a large eye with black pupil surmounted by a possible ear. Both above and below these profile faces are what have been interpreted as fish heads. As you can see for yourself, many more elements could be pointed out.

Haida designs, as all those from the north-west coast, repay close examination, revealing a host of possible combinations, eventually inexhaustible in their possibilities. It is good to look closely, but close looking will never reveal a final answer. The possible combinations of motifs mean that the same element can contribute to different figures, so two different things can inhabit the same space. There is also a play with dimensions – the largest central nose has a hint of three-dimensionality even though it is rendered on a flat surface. Such dimensional play is much more pronounced on a three-dimensional object such as a mask, where it often seems that the craftsman has conceived of a design (such as a face) in two dimensions to render it into three. If the physical skill of these works was not enough, they also derive from great philosophical playfulness and dexterity. The viewer is brought up against the deceptiveness of appearances, the processes of transformation that are a constant, the ambiguity of the world, laid against a paradoxical existence of multiple truths in a single point of time and space. If we, as outsiders, can start to appreciate such play, paradox and depth, how much more is there to be seen by a group who know how to look, have understood the stories of these myths from birth, and are able to match the punning nature of words to that of the images.¹¹

Many elements of these cultures have been lost, but fortunately much also survives to be made anew, for instance through the work of the great Haida carver Bill Reid, featured in many museums across the world. Although far removed in time, space and ultimate sensibility, there are echoes here of the ambiguity, superfluity and transformations found in Celtic or Scythian art that we saw in [chapters 5](#) and [6](#): all these arts present in concrete form other ways of thinking about the world.

In many areas across the continent creative transformations were seen, with cosmologies central to encounters with the new. Across the Great Lakes region, from the late seventeenth century onwards, French traders started to meet various Algonquin peoples. The French were interested in beaver skins to sell back in Europe, where they were made into hats. They brought with them the conventional set of trade goods employed by colonial

traders: beads, copper kettles or mirrors. As it happened, many such items resonated with local values: an important aspect of becoming adult was to carry out a spirit quest to recover important objects, which they then wore on their clothing to manifest the powers gained in the quest. Colour was important to local people, with red, white, blue-green and black resonating in important ways: red had connotations of anti-social actions of violence or warfare; blue-green purposiveness of mind, knowledge and expansive forms of being; black indicated an absence of cognition or animacy; substances with particular colours, such as white marine shells, darker porcupine quills for beadwork, rock crystals, native copper or coloured stones, were linked with beings beneath the water or the Earth (such as the panther, dragon or horned serpent) who were the guardian spirits of various medicine societies. The values attached to local objects were extended to European trade items. Where the French thought in terms of financial return, local people were interested in values linking them to the major powers of the cosmos. They were rather puzzled that the French were happy to part with such spiritually charged items in return for something relatively trivial such as beaver skins. These exchanges, based on incommensurate value systems, were the basis for a set of pragmatic exchanges between Native Americans and Europeans, which broke down in the early nineteenth century when the Europeans started to appropriate native land on a large scale.

Africa and the Americas had no historical connection during much of their long-term history, but over the last few centuries they have come to be dramatically linked through the mass movement of West Africans as slaves in Brazil, the Caribbean and the US. For obvious reasons it is not clear how many people were forcibly moved, but it could easily have been 10 million since the sixteenth century. Such large-scale connections have had the effect of introducing African beliefs and practices into the Americas, with religion and magical beliefs prominent. In Central and Southern America, West African traditions fused with Catholicism, the predominant form of Christianity there. Many movements could be discussed: Candomblé in its variant forms across Brazil, which mixes West African deities and Christian saints; or Cuban Santería, fusing Yoruba and Christian figures or beliefs, so that the Shango God of Thunder becomes Saint Barbara, or Orunmila, the God of Divination, finds a new form as Saint Francis. The one influence from East Africa is Rastafarianism, taking its name from the moment in

November 1930 when Ras ('Prince') Tafari was crowned as Emperor Haile Selassie of Ethiopia, the accession of a black king creating the desire for a symbolic, millennial return to the paradise of Ethiopia.

The most famous, or indeed infamous, is Vodou (spelled in various ways including Voodoo), found predominantly in Haiti, which had a particularly vicious plantation economy, sparking resistance. Vodou, derived from Benin, helped to galvanize resistance and, in 1804, gave rise to the first independent black state in the Americas, a remarkable story in its own right. Vodou emphasizes relationships between the living and the ancestral dead, together with a number of local spirits and deities. Life and death are seen as a cycle, leading to a holistic view of the human being in the world. Spirit possession, animal sacrifice, music and dance are all prominent features. Vodou helped a tradition of healers develop, of interest to poor people unable to access Western medicine. Its most infamous and parodied aspect are the Zombies, the living dead; zombies are people whose souls have been stolen by witchcraft, existing in a halfway state between life and death. Although Zombies are feared, a greater fear comes from becoming one. Vodou has its fearful aspects (as do all belief systems), but importantly it has given hope to the poor mass of people in societies such as Haiti, which are dominated by a tiny rich minority. Hope is the important feature of Vodou, not fear.

Recent appropriations of magic

One of the more controversial aspects of magic in the Americas is the use by non-native groups of indigenous forms of magic. A quick search on the web will take you to courses on North American shamanism, Mayan magic and much else besides. After paying money and taking a course, the student can graduate with some form of paper qualification in the magic of their choice. Unsurprisingly, native groups are extremely angry at such misuses, as they leave out most of the cultural contexts in which this magic developed and allow non-natives to make money from a cultural and intellectual property not their own.

One of the most controversial cases is that of the influential twentieth-century author Carlos Castaneda, who saw himself as promulgating Toltec learning, a claim that has given rise to considerable controversy. Like many millions of others, I read Castaneda's books and was attracted, intrigued,

mystified and ultimately unconvinced. What Castaneda offered was seductive: a window into *nagual* (pronounced *na'wal*) knowledge, hidden from the world outside prior to his writings. Castaneda had been a doctoral student in anthropology at UCLA. During his fieldwork in the south-west of the US he claimed to have been apprenticed to the Yacqui magus Don Juan Matus. Don Juan could access a parallel universe of 'non-ordinary reality' in which many of the mysteries in our own world could be understood, and impossible feats, such as flying, achieved. Access to this other universe was gained by taking peyote, jimson weed or mushrooms, through various forms of physical privation or meditation; an intellectual, analytical approach to the world should be given up in favour of a more immediate and physical mode of being. For a Western audience Castaneda's work held an echo of Aldous Huxley's book *The Doors of Perception*, in which Huxley recounted his own experiences with peyote. Huxley's title was taken in turn from a poem by William Blake: 'If the doors of perception were cleansed every thing would appear to man as it is: Infinite.' Jim Morrison read Huxley, naming his rock group 'The Doors' as a consequence, and they produced their first tracks in Los Angeles as Castaneda worked on his Ph.D. in the same city.

For those in the 1960s and 1970s searching for transcendental experience, Castaneda provided a foundation in traditional magical knowledge that was extremely seductive. His work had many other attractions. Here was a charismatic but troubled student, writing in simple, compelling prose about a series of life-changing experiences with an equally charismatic native teacher, who drew on forms of knowing with deep cultural roots, using examples that meant that this knowledge spoke directly to current concerns. Within the borders of the US, the nation seen to be at the forefront of modernity, lived people and traditions with quite different logics to those of the mainstream.

There are many mysteries surrounding both the person of Carlos Castaneda and his encounters with the Yacqui. No Yacqui terms are ever used in Castaneda's books, and no one has ever been able to verify the existence of Don Juan. Many of Don Juan's wisest sayings bear a considerable resemblance to the aphorisms of others, including figures like Freud and Wittgenstein. On the other hand, *nagualism* does exist throughout Central America and up into the US as a body of belief, which is more concerned with the fact that every human has an animal counterpart

and that some people with the right power can transform themselves into animals. These beliefs probably are rooted in the Aztec and maybe Toltec worlds. Feelings about Castaneda range between those who say he gained all his knowledge of the Yacquis from the UCLA library and used a lively imagination to construct his books, to those who feel he had some sort of personal experience that was then embellished considerably in the writing to fit within contemporary forms of transcendentalism and the drug cultures of the time. Castaneda probably read Huxley, for instance.

For native people, Castaneda is one more instance of the misuse of what is said to be their ideas, in this case for very considerable profit: Castaneda's books sold in huge numbers. Many see Castaneda's writings as combining a mixture of ideas from Buddhism and various mystical traditions, but also including generalized native magic from the American south-west down to Mexico. Without Don Juan as the central and anchoring figure, the 'teachings' would not have had the authority and power that they did, and still do. Had Castaneda written these musings as his own, we would probably not be discussing him now. For native people formal colonial appropriation may be at an end, but all sorts of appropriations are made from their culture and can realize large amounts of money. Native magic lies at the centre of such profitable reuses by others.

The Americas have developed strong magical traditions of their own, but they have also been influenced from the outside, in ancient times by the traditions of Siberia, more recently by those of Africa and Europe. Although taking many variants, the core of American beliefs has been a oneness with the universe, its creative and destructive powers. A very different emphasis on human entanglement with the world is to be found in Aboriginal Australia, Australia being a continent that has seen outside influences but has also developed a very strong separate and distinctive cultural trajectory going back over 60,000 years.

Australia

One Dreaming track or songline (known primarily by the Aboriginal term *Tjukurrpa*) stretches 7,000 km, snaking between the coast of northern Western Australia and the centre of the continent ([Figure 8.14](#)). This Dreaming track is connected with the Seven Sisters, female ancestral spirits who travelled across the continent, partly fleeing from a lustful old man

called Yurla or Wati Nyiru. This man was a shape-shifter, transforming himself into desirable food plants or a shady tree to attract the women to him. At first there were more than seven women, but their number diminished from the sheer labour of bringing landforms into existence. Some women transformed into rocks as they grew tired; others then took their place. Dramatic events occurred. At the Pangal waterhole in the country of the Martu (some of the last Aboriginal people to live fully in the desert), about 600 km inland from the Western Australian coast, the women taunt Yurla by flying above him and revealing their genitals. Yurla's penis detaches itself, bursting through the waterhole, leaving a hole that is still visible today. The women then flee south to another rock hole and Yurla's penis follows them along a creek bed. The sisters scramble to safety on a hill to the north, where they can now be seen as a line of rocks along the hill. Yurla hides nearby, with his penis (or maybe snake) coiled in waiting. The sisters outwit Yurla, but cannot shake him off. Maybe he is a man or possibly some sort of generative force from the Earth itself: this is never clear. Yurla tramples on all convention or propriety in his unbridled lust, reinforcing in a subtle way the laws by which people should live. After many thousands of kilometres of travel, the sisters avoid Yurla by flying into the night sky to become the Pleiades. This star cluster appears in the southern skies at particular times of year, signalling seasonal change on Earth, the growth of new plants and the birth of animals.

The Seven Sisters are known by different Aboriginal names because their tracks across the continent take them over the boundaries between language groups, whose linked stories both connect and differentiate the human groups. The Seven Sisters Dreaming track is one of many that cross the continent, although there are indications that such tracks were more prevalent in the vast deserts of Australia than in the south-east, which was wetter and more fertile, with greater densities of people. The notions of the Dreaming and of Dreaming tracks fascinate non-Aboriginal people, but it is hard to get a real sense of what such tracks are. The best known account of them by a non-Aboriginal person is *Songlines* by Bruce Chatwin, a most compelling account, containing attractive but misleading fictions, as we will see below. Various classic ethnographies write of the vast song cycles found across Australia, where Aboriginal people evoke the rhythm of the country through song, or, more accurately, they sing the rhythm of walking across hills, flats or creek beds. Sung rhythms readily translate into dance and

performance: people dance the country from which they spring. Such songs are thought to emerge from the country itself, with its human inhabitants becoming custodians and transmitters of the epic song cycles, which are now under threat in many parts of Australia due to dislocation from the land.

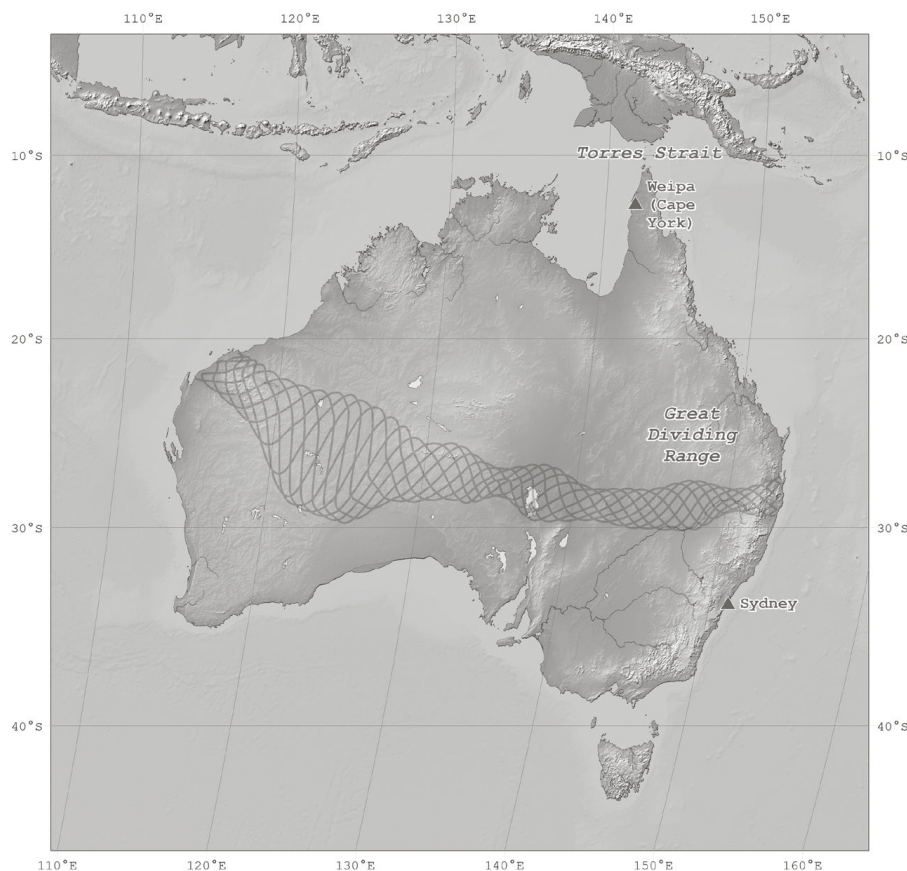


Figure 8.14. Map showing the topography of Australia and sites mentioned in the text; also, seven sine waves depicting the Seven Sisters songlines that cross the continent.

Like all compelling fictions, this had more than a grain of truth. However, songlines do not describe continuous tracks – as we have just seen, the Sisters can fly from one waterhole to another without traversing the land in between. Dreaming tracks describe a sacred map, focusing on the aspects of the landscape most important to people in terms of their ancestry and cosmology, as well as on more quotidian concerns, such as where goannas or wild yams can be found. They reinforce what Aboriginal people see as the Law. The Dreaming stories traverse the full spectrum of life, from the everyday to the broadest of cosmological concerns, from life around a waterhole to the stars in the sky. Morality is built into such stories,

as well as questions of ownership, the obligations of custodianship of the land; and there is also an element of navigation. Dreaming stories have many layers, and outsiders only ever get to experience the most superficial of these; indeed the words and song are only one part of a broader whole – it is only through walking or living and dying within the country that full sense is made. An intellectual appreciation of the world must be coupled with the fully sensory and emotional experience found in all human life, with its puzzles, conflicts, satisfactions and losses. For the many of us in the world who partly see land in terms of its price and who move from place to place during our lives, it is hard to grasp the deep rooting of identity in the land that many Aboriginal people feel.

The Dreaming might seem to be about the past, but that is not so for Aboriginal people and has been better described as an ‘eternal present’, in which past and present are conflated in ways hard to make sense of within a linear conception of time. Peoples’ connectedness (for good or bad) is increased through the notion of totemism (the English word comes from an Algonquian, possibly Ojibwa term, designating kinship). Each Aboriginal group has a plant or animal as a totem: for example, it is thought a human being will have some of the characteristics of the black cockatoo or rock wallaby that is their totem; such a connection is meant quite literally, giving people a continuity with the world. (There is the palest of reflections of this practice in the naming of sports teams after animals or birds – the Bears play the Beavers.) For Aboriginal people this continuity between humans and the world around them casts into doubt our idea of humanness as some sort of separate state. In my terms this is magic in the deepest and most enchanting sense of the word. The powers of life are interconnected and intertwined, so that Yurla can be a man or a lustful, generative force; and the Sisters, women or rocks.

Far to the north of the Dreaming tracks we have been considering live the Yolngu people in the north of Arnhem Land; they will allow us to focus in detail on how beliefs in ancestors and spirits are worked out more locally. About 5,000 Yolngu people live today on old mission stations or in smaller centres. As in many areas of the continent, people are balancing the demands of Western culture and their own. Yolngu life is centred around *mardayin*, perhaps best translated as ‘sacred law’, which regulates land ownership and responsibilities towards land, together with the cycles of songs and dances, objects and paintings, that embody the law. As Howard

Morphy writes in his compelling account of Yolngu life and art, 'Knowledge of a clan's mardayin is necessary if its members are to fulfill their obligations to the ancestral beings who entrusted them with looking after their land.'¹²

Power, known as *maarr*, is vital for the fertility of land and people, and *maarr* was bestowed by the *wangarr*, or ancestral beings, at the dawn of time as they moved across the landscape. *Maarr* is always a beneficial power, bringing success in hunting or gathering and generally guaranteeing well-being. Each Yolngu clan has its own *wangarr*, who are often powerful or dangerous creatures such as crocodiles, death adders or various species of shark. Painting such ancestral figures on bark or on the coffin lid of the deceased does not represent the figure but *is* the ancestor, making them present with all their powers. Such beliefs have echoes in many parts of the world, where ancestors have a profound influence on the living. Ancestral power is also contained in powerful objects, which are often kept secret, only known much of the time to senior men. Old people who have engaged in many important ceremonies during their lives accumulate so much power that they almost become sacred objects themselves; such old people blur the boundaries between the everyday and ancestral worlds.

Each clan has particular parts of its territory associated with the conception spirits that originate from the ancestors. On a person's death their spirit will be directed back to these reservoirs of spiritual power through appropriate ceremonies and objects. The ancestral beings provide the power to create life and growth, which must be returned to the ancestral world on death. Areas of Australia where Aboriginal ceremony, art and performance have broken down through people being driven off their lands or killed are thought of as orphaned landscapes: places that are not cared for and at which the flows of spiritual power have ceased, until such time as ceremony is able to recommence. In cities and areas heavily populated by non-Aboriginal people it will be hard to start up ceremonies again, although never impossible.

Such beliefs have deep histories, although Aboriginal people are doubtful of the idea of history, preferring to see the eternal nature of their beliefs and understandings, which are deeply rooted in place. White people occupied the continent from 1788 onwards, with the largest populations in the south-east, present-day New South Wales, Victoria and Tasmania. Here the story we saw in the Americas played out again, with untold misery for native

peoples, as 80 per cent or more died from smallpox, flu or the common cold due to lack of immunity. Whites came with a notion of primitiveness and a sense of their own superiority, bolstered by the idea that their religion and science were superior to the magical beliefs of Aboriginal people. Diseases often travelled ahead of white settlers by moving from one Aboriginal group to another; and, because native people had no resistance to these, in many areas the first accounts of Aboriginal life were of groups already reeling from the effects of disease, reinforcing the idea that Aboriginal people had ways of life that only just allowed them to survive. Careful piecing together of historical records, however, gives some sense of what Aboriginal life had been like.

The first European accounts of Australia were of park-like landscapes – open grasslands dotted with trees. For Aboriginal people grasslands were useful, as they provided seeds but also bulbs and tubers; their major sources of meat, such as kangaroos and wallabies, ate grass. Grassland was encouraged through burning. But the landscape was not purely or mainly pragmatic, and in recent accounts people talk about cleaning the country through fire. Fire is as a friend, with its own ceremonies and great knowledge lying behind its use.

Dates	Events and processes
c. 60,000 BCE	First colonization from South-East Asia, rapid spread across continent
60,000– 8000 BCE	Establishment of regional ways of life, rock art of various chronological styles that shows forms of ritual and magic unknown later
8000–2000 BCE	Sea-level rise, possible intensification and population growth, especially in eastern Australia. First mounds that evidence ritual, magical and historical practices. Rock art indicates relationships between people, animals and plants. Oral histories show some elements of Dreaming beliefs date back to this period
2000 BCE– 1788 CE	Great intensification of food production in some areas and high populations. Continuation of rock art and mounds, as well as Dreaming tracks

1788 CE– present	Beginning of first white settlement, mass death and dispossession of Aboriginal people
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Table 8.3. Broad chronology for Australia, from first colonization through to white settlement.

Due to the rapid extirpation of Aboriginal people on contact with whites, much of the Australian landscape was reverting to forest by the middle and later nineteenth century, when it was cleared, giving Europeans a false sense of what the country had been like (an excellent account of Aboriginal land-care practices is contained in Bill Gammage’s *The Biggest Estate on Earth*). But there is now good evidence that fire was used by Aboriginal people throughout their 60,000 years of occupation of Australia, giving the lie to the idea that the Australian landscape today is a basically natural one, from which hunter-gatherer groups took what was offered to them (see [Table 8.3](#) for an outline chronology). Although they did not engage in farming through planting and harvesting or herding animals, Aboriginal land care was long term, systematic, and aimed towards a relationship with the country that was both physically and spiritually sustaining.

It is not just land that is important to Aboriginal people but also the sea. Australia’s oceans are incredibly productive and varied, so it is no surprise that some of the most striking features of archaeology are large shell mounds or middens, which were well investigated around Sydney, the Northern Territory and Queensland. Early research on middens took a very functionalist stance, with interest in which species were collected, how far these can inform on changing conditions of coast and river systems as sea levels stabilized over the last 4,000 years or so, how much food the meat in the shells produced and so on. These are all valid questions, but more recently, partly because archaeologists are working more closely with indigenous people or indigenous people are training as archaeologists, things like middens have been rethought.

Ian McNiven’s recent work in the Torres Strait has prompted a rethink on shell mounds. This is a 150-km-wide stretch of sea and islands that separates Australia from New Guinea, comprising an abundant tropical region with a maze of coral reefs abounding in fish, shellfish, turtles and dugongs (a marine mammal weighing around 400 kg). Many different mounds are found, some mainly composed of dugong bones, others of shell and fish bone, and others still contain a broader set of debris. McNiven

points out that many different relations contribute to the composition of the mounds: those between humans and non-human species, which have a totemic or cosmologically charged aspect; those between men and women when gathering, cooking and consuming food; and those between the individual and the group during the process of initiation. Overall, the material found in middens illuminates all important aspects of the history of the group.

Mounds are not composed of rubbish, of unwanted material to be disposed of, but rather of culturally charged items to be treated with care as bearers of crucial histories and relations. As people pursue everyday tasks in the villages on islands such as Mabuyag in the Torres Strait, the middens are a constant reminder of past important events, pointing also towards ceremonies to come, and such important events are thereby linked to the routines of everyday life. At Weipa, on the west coast of Cape York, mounds many metres high have been accumulated; monumental reminders of vital relations between humans, non-humans and ancestors.

Australia also has one of the greatest bodies of rock art in the world: although there are dramatic clusters across the tropical north and desert centre, it occurs across the continent. Archaeological evidence indicates long connections, with some rock-art motifs probably 30,000 years old still in use today. Stone tools, the major source of evidence from Australia, were imbued with aesthetic and spiritual qualities through colour, brilliance and the potency of their source, challenging to the prehistorian more at home with understanding the flaking and cutting properties of stone than their cosmological significance.

Rock art changes over time but also shows continuity, with different styles emerging over many millennia. Rock art combines the geometrical and the figurative. It is difficult to date, but a combination of an analysis of the changing styles, superimposition of images and some absolute dates allows decent sequences to be developed. Early phases of art in Arnhem Land reveal creatures long extinct; a subsequent 'Dynamic' phase shows humans carrying weapons, wearing clothing, and often leaping or running; later still are humans with the features of yams – all of these styles were probably painted before the end of the Ice Age, and it is only in later styles that ancient artists painted creatures like the crocodiles and freshwater fish that can be found today. The earliest styles give us a window on Pleistocene life in Australia, presented through the cosmological lens then current.

Large, elaborate headdresses of the so-called Dynamic style figures indicate forms of personal decoration and ceremony unknown from later periods, demonstrating how much we have lost of the complex histories, ancient and recent, of Aboriginal Australia.

Songlines today

Wati Nyiru was a clever man, a shape-shifter who could transform into enticing bush foods or shady trees to entice the women. Sometimes his powerful lust created an arc of amazing colours stretching right across the sky, a rainbow of desire, arcing over the women and spying on them.

– Inawintji Williamson, of the Anangu Pitjantjatjara
Yankunyatjara Lands, in a performance
Kungkarangkalpa inma in Canberra, 2013¹³

White man got no dreaming, Him go 'nother way, White man, him
go different, Him got road belong himself.

– Muta, man of the Murinbata

Aboriginal and non-Aboriginal groups in Australia often approach each other through stereotypes, the truth of which gets buried through over- or misuse. Non-Aboriginal views are too frequently hackneyed, deriving from racial prejudices. Aboriginal groups are seen as unable to organize themselves so as to cope with the contemporary world; this ignores the effects of over two centuries of colonial dispossession and dislocation. Interestingly, where broader Australian society values Aboriginal styles of life is in their spirituality, through the art that results from that, which now has very considerable monetary value on the international market. Aboriginal art is striking visually, but comes replete with stories, links to country and to the Dreaming. The poet Les Murray wrote that Australia had been ruled by poetry for tens of thousands of years – the truth of this statement can be seen in the first quote above. But it is ironic how the common term ‘songlines’ has become a shorthand for Aboriginal attachment to land, popularized as it was not just by a white person but by a

posh Englishman, Bruce Chatwin. He was also aware through reading and discussion that there were tracks across the country that describe its features, resources and dangers. He then conflated the songs and the dreaming tracks to create the notion of songlines, where people could navigate the continent in song, singing country that they had never seen.

For Aboriginal people whites have no Dreaming, and this is shocking. As a consequence, Aboriginal people are often surprised by what they see as the warped spirituality of much of Australian society. Knowledge of the world abounds, and is taught in schools and universities, but this is abstract knowledge and it is not centred in the land; nor is there any sense of responsibility for either the knowledge or its moral entailments. Inherent in Dreaming tracks or songlines is not simply a story of creation but also one of how people are linked to the land, the sort of responsibilities they have and the best means of discharging these. The magic of Aboriginal society binds people and the land together, and the land includes not just soil, rocks and water but all the plants and animals, interwoven into one indivisible whole. Songlines can exist as tracks right across the continent, or within a single region, or as detailed tales of a single clan's estate.

It is easy for outsiders to romanticize past Aboriginal ways of life, with a yearning for human groups at one with the world in which they lived. Indeed, to a great extent, Aboriginal people were more involved with the world, which was not so much a world around them, an environment, as a world within. People were open to the destructive forces of the world as well as to its creative aspects – the desert droughts, the conflicts within and between groups, the venom of a snake – and their relationship to the country was not just one of romantic, benign unity. What it means to be an Aboriginal person within contemporary Australia is an urgent and difficult question, and is closely tied to the issue of how Aboriginal culture can add to and change Australia's sense of itself. There is no doubt that Aboriginal practices and beliefs indicate extra dimensions of being, often hard to grasp in their full depth and subtlety, but offering the most grounded of alternatives to ways of life in current mainstream Australia and indeed in many other parts of the world. What should also be obvious are the creative possibilities a deep entanglement with the world offers and how diminished the world is through the depredations against Aboriginal magic over the last two centuries.

Magical participation in times of dispossession

An older man on Pililo Island, Papua New Guinea, told me about local clan histories, tracing back a series of human generations, before ending by saying, 'And we all come out of that rock', pointing to a very large boulder on the seashore. This was not a figure of speech but a form of being – something to be taken literally. It has stayed with me ever since. People live surrounded by sentient beings, who may be human in some way, even though they take the form of a rock or a plant. Identity in the present is affirmed by tracing chains of connections, sets of genealogies that link human generations but anchor these within the broader world.

Across Africa, the Americas and Australia, people in the past and the present cultivated modes of participation in a great variety of forms. We might posit a spectrum of power from the relatively egalitarian hunter-gatherer groups in the Americas, Africa and Australia to the highly structured political forms of Late Iron Age and Medieval Africa or those of the Aztecs, Inkas and their predecessors. Egalitarian groups are not totally equal, with older people having more control of ceremony than the young, men more than women. Secrecy also surrounds the participatory magic of the group, so that much is not told to outsiders – that is, those who have not been fully initiated into local forms of knowledge – who can then understand only parts of a holistic world-view without ever seeing the whole. Objects and paintings are used to make spiritual forces present at a ceremony, acting as a means of connection, or portals, to the spiritual world. In some cases, once the ceremony is over, the spirits depart: Aboriginal people might walk across a sand-painting that only a little while earlier they had treated with great reverence. Flows of power are crucial, and once the spirits leave things artefacts can lose their sacred aura.

In the state societies of Africa and the Americas magical relations were very different. The rulers held power partly by virtue of their superior links to cosmological powers, only sometimes personified as gods. Appeasing these powers created a constant need for sacrifice: among the Aztecs a massive flow of human blood was required. Pain formed a constant acknowledgement of magical powers, very often self-inflicted, in ways many of us find hard to contemplate, let alone practise. The Inkas sacrificed people on the accession of a new ruler and at other times when the need was great. Such transactions with broader powers were constant and well-developed, also occurring regularly in parts of Africa. Sacrifice in these

forms is not known from Aboriginal Australia, perhaps being a form of magic integral to political hierarchy and power.

Across these vast regions, people were generally animist, although animism took an enormous variety of forms. Things could act, move and have intentions, or could be given such powers through ceremony. Divisions between subjects and objects, knowing people and inert things, which are so intrinsic to science, were not easily made in many native philosophies. All the world was knowing in its own way, and the forms of respect accorded to other humans might need to be extended to plants, animals and landscapes. A respectful attitude did not always make for harmony and cultivation; just as people could be treated violently, so could other things. But violence should be enacted knowingly and with thought, rather than out of carelessness or being oblivious to other entities.

Once we start examining the range, depth and subtlety of philosophical and magical practices in the Americas, Africa and Australia, it is hard to imagine why these have been so thoroughly marginalized and made to seem exotic by the Western world. Such cultivated ignorance is a cultural and intellectual outcome of colonialism. It is taking us a long time to get over, partly because it is hard, sometimes impossible, for any of us to step out of our own deeply held systems of belief. At the very least, the beliefs of others, seeming strange initially, can cause us to question our own common-sense views on the nature of powers in the world, what is human and what is not, as well as how to act respectfully towards the world around us and the forces it may contain.



9. Medieval and Modern Magic in Europe (500 CE–present)

On 16 April 1872 a group of men sat drinking over a Sunday afternoon in the Barley Mow in Rockwell Green, a hamlet just outside Wellington in Somerset. Although April, it was evidently still chilly, for the men sat around a fire. A sudden gust of wind rattled in the old wide chimney of the pub and a number of objects rolled on to the floor. The men, knowing what these objects were, seized them and carried them off, but the story got out locally, even becoming known to E. B. Tylor, whom we met in [Chapter 1](#), then a local magistrate and later a professor of anthropology at Oxford University. Tylor instituted enquiries and recovered four of the objects, which were onions wrapped around with paper, attached to the body of each onion with pins. One still exists within the collections of the Pitt Rivers Museum, Oxford ([Figure 9.1](#)), of which Tylor was later the keeper. As it happens, the name written on the paper attached to one of the onions was that of Joseph Hoyland Fox (1833–1915), a cousin of Tylor's wife, Anna Fox (before becoming Anna Tylor). Like the rest of the Fox family, Joseph was a Quaker, as was Tylor himself for the first half of his life, and hence opposed to drink and the establishments selling beer and other liquor. The onion was a small and unlikely weapon in the battle between those convinced of the evils of drink and those wishing to sell and consume liquor.

At the time of these events in the 1870s, Wellington, which gave its name to Arthur Wellesley when he became the Duke of Wellington, was a small

town of some 6,000 people; a major employer was the wool mill at Tonedale, owned by the Fox family, who also part owned the last commercial bank in Britain able to issue its own bank notes. There was an Anglican parish church and a Friends' Meeting House on the High Street, built in 1845. Wellington gained its own railway station in 1843 and the Tylors travelled regularly by rail between Oxford and Wellington, where they lived in Anna's family home, Linden House. Late-nineteenth-century Wellington is a microcosm of England, with divisions of class stretching up to the distant Wellesleys, the Foxes, the locally dominant family, and the majority of the inhabitants made up of the workers and agricultural labourers, including the men drinking in the Barley Mow. Divisions of religion were evident between Anglican and Quaker, but the onions themselves indicate other belief systems also existed. It was these that fascinated and horrified Tylor, as well as the other more respectable inhabitants of the town. The Barley Mow, described by Tylor as 'a low cottage ale-house', had opened in 1870, when its landlord, Samuel Porter, applied for a licence under the newly introduced Wine and Beerhouse Act 1869. Porter's first application had been turned down on the grounds that improper characters assembled there, with the further suspicion that 'girls of bad character' were using the two houses close by. Different moralities clashed here, with middleclass values reinforced by law in the form of the new Act, which made Samuel Porter's life more difficult. His two applications for 1870 and 1871 went through without problem, but we can see that the Barley Mow was the centre of local class and religious politics around drink and sex.

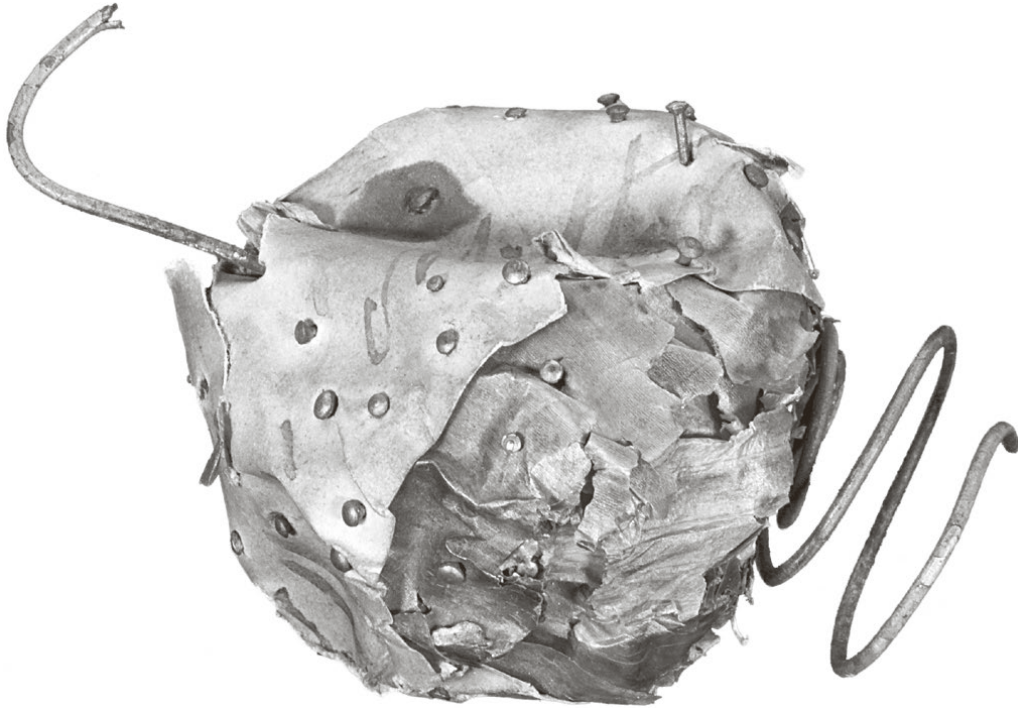


Figure 9.1. The onion in the Pitt Rivers Museum, donated by Lady Tylor to the Pitt Rivers Museum after E. B. Tylor's death in 1917.

We know about the discovery of the onions in the chimney from a letter by Tylor to his uncle,¹ in which he also mentions the slightly dubious reputation Samuel Porter enjoyed locally. Porter was a seventh son thought to be possessed of unusual powers (playing on the supposed importance of the lucky number seven, seventh sons were often seen as enjoying occult or magical abilities), so no one doubted that he had placed the objects in the chimney. (The onions in the Barley Mow were part of a much larger class of items in chimneys, as we will see.) To quote from Tylor's letter: the discovery of the objects in the chimney occasioned a 'considerable sensation in the village it being well known among the cottagers that to stick pins into objects identified with persons, and to hang them to dry up a chimney is a way of working harm by magical sympathy to the person who is thus pricked & dried up in effigy'.² Samuel Porter's reputation as a 'wizard' may have led him into his own small campaign against those he felt opposed his making a living through selling drink. Tylor's cousin Joseph Fox had certainly been active in this regard, as Tylor's letter indicates: 'The house is a low one and Joseph has wished to buy it up or put a stop to the licence, which ... accounts for the man's anger against him, vented in this proceeding which is not the less ugly for being really

harmless.’³ Joseph Fox, in pursuit of his Quaker beliefs, had continued running the Wellington Temperance Society, which his father had founded, and in 1869 had set up a Temperance Hall in Rockwell Green, with a Coffee Room visited by twenty to thirty people each evening. Whether these people might have visited the Barley Mow in the absence of the Coffee Room, we do not know and might doubt. However, Porter’s business survived, and Joseph Fox appears to have come to no harm through the magic practised against him, as we know from Tylor’s letter: ‘My friend, apparently, was never the worse, but when next year his wife had an attack of the fever, there was shaking of heads among the wise.’

The discovery of the onions and a number of other magical items subsequently was a shock to Tylor. A year before these onions rolled out of the chimney, Tylor had published the most widely read and influential book on anthropology of the late nineteenth century in Britain and beyond: *Primitive Culture* (1871). He synthesized what was known of the customs and beliefs of people across the world living in small-scale societies, which were of interest to anthropologists. Tylor was especially concerned with belief systems, and at the heart of the book was the idea that human intellectual culture moved from a belief in magic, to a belief in religion, and then to a belief in science. Each successive belief system was more rational, institutionally based and effective than its predecessor. In such a historical scheme people had to choose which belief system they thought best, and sensible ones would choose science – the very opposite of the idea of a triple helix I have been developing here, in which elements of magic, religion and science are all vital, as they resonate with various aspects of human experience. Tylor styled himself a scientist and called anthropology an ‘emancipatory science’, by which he meant that by documenting outmoded and irrational beliefs in other societies, anthropology would allow him and others to spot residual traces of such beliefs in his own and root them out. Magic belonged to an earlier stage of human intellectual history, not to the rational, scientific, industrial and imperial Britain of the late nineteenth century. Tylor saw magic in a British context as a survival, rather like some creature known from the fossil record that is found to still be alive in a remote corner of the world. Rural Somerset was remote in some ways but still a central part of Tylor’s life, and when he followed up the discovery of the onions with objects connected with witchcraft, or various forms of magical medicine, along with enthusiastic dowsers and

spirit mediums, it became harder for him to marginalize all these occurrences as survivals from a bygone age. But, although these experiences caused Tylor some cognitive discomfort, they were not enough to shift his basic stance.

Now we can take a very different view of British and indeed European magic of all ages past and present. Popular magic of the type practised by Samuel Porter was part of a huge, changing and innovating apparatus through which people, often those without easy recourse to law or the official institutions of society, could attempt to deal with problems of their lives and livelihoods. The onions at the Barley Mow are one instance of many things found in chimneys and other parts of houses. Most that we know of were protective, as we shall see, but Porter seems to be experimenting, hoping that the drying of onions through smoke would dry up the bodies and lives of those named on the papers attached to the onions. Magical practices of these types must have been passed on by word of mouth over many generations, but magic was not purely traditional, the unthinking repetition by credulous and ill-educated people of the same acts. With people placing things in chimneys, we are very much in the realm of popular magic, and this may have linked into learned magic, which is what we will consider next.

The trajectory of Medieval and modern magic

We have started in the nineteenth century, near the end of the period of interest here, but we will consider magic from the fall of the Roman Empire in the fifth century CE to the present day (see [Table 9.1](#) for a broad chronology), and we will look at how the magical inheritance of the ancient world was drawn on and transformed in the Medieval and modern periods. Over these 1,500 years magic first existed within a religious, Christian context and then in a culture increasingly influenced by science.

Dates	Events and processes
410 CE	Fall of the Roman Empire and start of the Medieval Period. Magical inheritance from various strands of the ancient world

Dates	Events and processes
597 CE	Christianity reintroduced into England and the further development of magic connected to the Church – evidenced through graves and deposits in the landscape
c. 1000 CE	High Medieval Period starts – further development of astrology and alchemy, drawing on ancient traditions. Curses and protective devices both found. Theory of Humours
c. 1350–1600 CE	Early Modern Period – Renaissance – mix of magic, religion and science. Further development of astrology and alchemy, with influence of newly translated Greek texts. Dee active – talk with angels, developing prediction. Protective devices in churches. First widespread persecution of witches
c. 1600–1750 CE	Development of modern science – Newton combines scientific and magical ideas. Much emphasis on protection of the home. Persecution of witchcraft more prevalent in Eastern Europe
Nineteenth century	Dominance of mechanical universe, but continuation of all forms of magic – astrology, alchemy, witchcraft and vernacular magic, including onions, etc., in chimneys
Twentieth century	Birth of new physics – quantum mechanics and relativity. Development of new magical organizations (see Chapter 10). Continuation of a great range of magical practices. Some aspects of modern science echo magical ideas (see Chapter 10)

Table 9.1. Broad chronology of cultural changes in Europe, from the Early Medieval Period to the present.

The Medieval world developed an image of deep participation, situating people fully within the world. The Earth sat at the centre of the cosmos, surrounded by concentric spheres, with various celestial bodies in the lower spheres, the movement of which influenced people's moods, health and

destinies. The theory of Humours, originating in Greek thought, was based on the idea that people were made up of Earth, Air, Fire and Water and stressed that humans were compounded of the same stuff as the Earth but also further explained the influence of the planets, as various planets were linked to the four elements. A variety of techniques existed to maintain human balance between the earthen, the fiery, the watery or the aerial. Herbs, tinctures and other compounds helped to treat imbalances in the body; here magic cures shaded into medicine. Transformation was a crucial preoccupation, which melded into what we would now think of as chemistry, with attempts to turn more base substances into noble ones, attempts that were part of a broader desire of the universe to move towards perfection. The Church was a strange centre of magic, from its miracles to the veneration of saints, but also because of its acceptance of demons and angels, a constant and acknowledged dimension of people's lives, bringing fear and awe. Super-human beings needed to be bargained with, and only those with the right knowledge or power could extract bargains. The revenant dead were also feared, as too were witches and warlocks. Technologies and techniques existed to discover and counter the many dangerous magics abroad in the world.

In building these complex pictures people blended Christian ideas with those from the ancient world, primarily their understandings of Plato and Aristotle. Questions of how the universe worked in terms of the spirits and forces that moved it, the position of the Earth in the universe and that of people within the cosmic whole were all crucial. Charges of heresy and impiety could make these questions a matter of life and death.

A most fascinating period is that of the Renaissance, in the fifteenth century through to the seventeenth. Here there existed a complex combination of what we now separate out as magic and science, but that then coexisted productively in even the greatest minds of the age. I will contrast John Dee, usually described as a magician, and Isaac Newton, usually described as a scientist. Dee developed magical practices, some drawing on Medieval world-views, but he also approached what we might see as science through, for instance, his interest in alchemy. Newton was also a committed alchemist and astrologer, as well as a slightly unorthodox Christian; none of this prevented him from developing ideas that became the foundations of modern physics, even though for Newton the universe was sentient rather than a series of insensible objects moving through force,

mass and momentum. Astrology and alchemy were found throughout the Early Modern world, as were both aggressive and protective forms of magic. In this period we see the triple helix of magic, religion and science start to take modern shape, although none of these categories were felt to be totally separate at that time.

Science did come together in the Enlightenment of the eighteenth century to cast magic out of polite intellectual circles, because it did not by then fit the emerging mechanistic model, in which the universe was moved by purely physical forces as they acted on brute forms of matter. Where magic had emphasized resemblances between things, science sought cause and effect, an emphasis that was quite new. Furthermore, magic did not pretend to be objective, in contrast to the new science. Science said it could stand back and understand the world objectively, so that any suitably trained scientist would come to the same conclusion about the same experiment or set of theorems. For the very first time magic was banished to the margins and often pushed down the class structure. Tylor is one of the nineteenth-century inheritors of the new cultural role that science claimed for itself, although, like others, he could not escape a fascination with contemporary magic, while still dismissing it. We have now taken this attitude for granted and find it hard to appreciate that in all other times and places magic was central to human life.

The large literature on the growth of science and the decline of magic stands apart from increasing and enthusiastic accounts of popular magic, which finds onions up chimneys, protective geometric designs in churches or houses, cats in walls and witches in bottles from the Early Medieval Period through to the present. This writing on popular magic is often undertaken by people sympathetic to the magics of old, inclined to celebrate these colourful and common activities. Occasionally those looking at scholarly magic try to connect it with popular beliefs, because they were mutually influential in ways barely yet charted. I agree, and see a large and continuous field of human action in which, on the one hand, ordinary people were coming up with inventions that fed into science and, on the other, they were experimenting with spirits, talking to the dead or with angels in ways that underpinned esoteric forms of magic. In all cases people were thinking about, and experimenting with, the position of people in the cosmos, as well as the moral and physical entailments of how humans relate to the universe. Such thought combined a stress on the subjective position

of people in the world with attempts to be more objective. We are all by turns objective and subjective, which are complementary, not mutually exclusive, positions.

Medieval magic

During the Reformation a major criticism the Protestant Church had of the Catholic one is that the latter was magical. As Keith Thomas has written: 'The medieval Church ... appeared as a vast reservoir of magical power, capable of being deployed for a variety of secular purposes.'⁴

It is impossible to understand Medieval magic without embedding it within the context of the Church and of Medieval society more generally. Both institutional structures and cultural formations arose by complex means from the continuing structures of the Roman Empire, the massive admixture of influences brought by German and Slav populations coming into Europe from the east and inheritances from the older European populations with traditions deriving from prehistory, which we looked at in [Chapter 6](#). These are complex issues of which only a brief summary can be made here, but some important points stand out. The conventional date for the end of the western Roman Empire is 410 CE, when Rome was sacked by the Goths. The Roman Empire fell, but in many different ways across Europe. In Britain Roman institutions disappeared relatively quickly in many, although not all, areas, and the fifth century CE is a period of mystery and debate. Even in Britain there was continuity in the countryside, with farming and food production, Roman fields and landscapes. Industry and consumption did decline massively for several centuries. Although Britain had become Christian in the Late Roman Period, it is only in western regions that churches and Christian worship continued. Elsewhere, Christianity was reintroduced into the Anglo-Saxon world around 600 CE. At the opposite end of the scale, the Mediterranean world in Italy, Spain and Greece saw the Church continue, along with the learned culture of the times and a number of Roman institutions. The same was also true in North Africa before the Arab invasions of the seventh century CE. Philosophical debates within a Christian idiom, but drawing on Classical learning, were important to the continuation and nature of magic as practised later. France and Germany west of the Rhine saw a situation somewhere between

Mediterranean continuity and British collapse, with a degree of Roman infrastructure and agriculture influencing later Medieval developments.

The real break with the Roman world in a physical and social sense came from 850 CE onwards (although some prefer a later date of around 1000 CE), when Medieval villages were set up across Western Europe, the majority of which still survive today. These were centred around the church, with the manor house providing the seat of secular authority, sitting in the middle of large open fields divided into long strips farmed by individual families. We take these village communities for granted, as they are still part of our lives in Europe today, but they had unique and novel features on first foundation. Villages represented a community of the living and of the dead in one place, clustered around the sacred power of the church; in the earlier prehistoric and Roman periods villages were not so common, and in both cases it was very rare to bury the dead among the living. Many villagers became tied to the church or secular lords through obligations to pay taxes in money or produce, although some were more free. So basic social facts created the ground conditions for Medieval magic: a society in which inequality was fundamental and had a tendency to grow; a complex combination of the living and the dead in one space; and the difficulties of life in which food could be short, children died young and people lacked relief from physical, psychological or even spiritual ailments. People developed any methods of amelioration they could. Necessity led to invention on a regular basis, with forms of popular magic a creative response to the privations of life.

Many have argued that Medieval magic was a continuation of earlier pagan practices. This might be true in some respects – for example, there was a continued and deliberate deposit of objects, animals and plants in preferred places.⁵ But the shape of Medieval village life was very different from that of any earlier period in Europe and so was its magic, as we shall see. In addition, there was the role of the Church, which, foolishly perhaps, had staked a considerable part of its claims to authority on an effective magic. The miracles of saints echoed the magic of Jesus himself; thus, a substantial claim to divinity was through the working of miracles; and miracles defined the saints, who in many cases kept working through their shrines. It is true that the Church tried to differentiate between miracles and magic, with the former the workings of God through people who were especially righteous, while magic worked through spirits, astrological bodies, demons, angels and the like, but this was probably a distinction lost

on many. At the heart of Catholicism was transubstantiation during the Mass, with the transformation of bread into flesh and wine into blood. That for the worshipper these two substances still looked and tasted like bread and wine was part of the miracle. As we will see, the Mass provided the basis for folk magic, and it may be that the magical tinge around the practice encouraged experiment outside the church.

The Medieval Period laid the foundations for later life in Europe, including magical traditions, and can seem now to be a more familiar world than it is. It is vital to acknowledge how strange this culture was in many ways, and its strangeness had a number of sources. Both the prehistoric world and that of incoming Germanic groups were broadly animistic ones, but they were also inhabited by gods in the latter case. The rules of the world that constrain humans – of gravity, bodily strength or the powers of life and death – were generally ignored by the gods, who were joined by numerous spirits of place, giving local texture to cosmological issues. People like the Huns and Goths may have originated far to the east, as Steppe peoples, and were part of the broader Eurasian inheritances of magic and animism we explored in [Chapter 5](#). As is their wont, gods were capricious and often careless of human needs, as we can see from Viking and Icelandic sagas.

Learned magic in the Medieval world

Philosophical schemes came into being, which had both learned and more popular manifestations. Links between the macrocosm of the universe and the microcosm of the human body were found in the theory of the Humours. The world as a whole was seen to be composed of Earth, Air, Fire and Water, drawing on the thoughts of Aristotle, which were at once complementary and opposing. The solidity of earth contrasted with the motility of the other elements: water could extinguish fire and so on. These four elements also made up the composition of the human body. Fire, which was hot and dry, produces yellow bile and a choleric disposition; the cold and wet nature of water makes phlegm and causes a person to be phlegmatic; earth is cold and dry, encouraging black bile and a tendency towards melancholy; air is hot and wet, creating blood and a sanguine attitude. Physical and mental health revolved around attaining balance between the Humours, which could be achieved through bloodletting, diet

and various activities, but there was also a natural variability in humoral composition between genders and ages. Men were hotter and drier, while women were colder and wetter. Male embryos grew faster in the womb, men digested food more quickly and were able to transfer nutrition into hair and nails more readily. The relative absence of heat in women might make them weaker of body and mind, and their watery nature explained why they were fickle. On the other hand, because slower moving, women lived longer. As the archaeologist Roberta Gilchrist has discussed, people of both genders dried and cooled with age, and each of the six stages of life – infancy (birth to 7 years), purity or childhood (7 to 14 years), adolescence (14 to 21 years), young adulthood (21 to 49 years), seniority (49 to 72 years) and old age (over 72 years) – had a planet to rule it. People could alter their lives or those of others by physical means on Earth, but they also needed to be aware of planetary activity and interventions.⁶

The universe was seen to consist of a series of spheres with the Earth at the centre, above which was the rotation of the Moon. It was only in the sublunary sphere that the elements and Humours held sway, because above there was an incorruptible celestial region with seven planetary spheres, an eighth of fixed stars, surrounded by a crystalline ninth heaven, above which was the tenth *primum mobile*, the sphere that set all the others in motion. The outermost ring was unmoving, formed of the empyrean heaven, where God, the angels and the blessed dwelt. The imperfections and vagaries of our world came under complex influences emanating from the spheres above, and it was only God and the angels that understood the full complexity of the cosmos. People tried to converse with angels but were generally too impure for conversation to succeed, unless the angel was trapped inside some form of matter, such as a crystal. Thinkers such as Robert Grosseteste (c. 1168–1253) argued that the cosmos was created through emanations of God's divine light, with angels (or sometimes intelligences) as elements of this light; some thought that this light could be trapped inside objects with shiny or reflective surfaces, such as crystals or mirrors, and communication could then be possible. The cunning of demons far exceeded human capability, making conversation with them even more perilous, as a human could not be sure if they were being fooled or misled. Desperation led to demonology, with some even going so far as to make pacts with the devil, bargaining their soul for knowledge and power while on Earth.

Views linking human bodies, basic substances and the planets were found broadly across all aspects of society, as well as within more learned forms of discourse. Plato, of course, also had a profound effect. Plato posited a world of essences and perfect forms beyond the shadow world of appearances in which we live, and his ideas gained new influence and impetus through later philosophers, such as Plotinus (203–70 CE), who developed the approach known as Neoplatonism, which allowed connections to be made between Plato's ideas and those of Christianity. It is hard to over-emphasize the influence of Plotinus on Early Medieval thought and then again on the Renaissance world. Plotinus also argued for a perfectly harmonious world beyond the one we can perceive; resemblances in our world, for instance between the form of a walnut and the human brain, are resonances of the more perfectly structured world beyond experience. By pursuing such resemblances in the world of our experience we might be able to come up with unexpectedly efficacious links between things and processes, which might be helpful – eating walnuts could be good for diseases of the brain. Such individual instances of mapping resemblances might ultimately be joined together to create an understanding of the perfect world beyond, and it was in such understandings that real wisdom might lie. What might seem to us a series of accidental and strange set of links between things held out to the Classical world and their Medieval descendants the possibility of a much more basic understanding of God's creation and creative process. The promise a theory of correspondences held was nothing less than a Grand Theory of Everything, in much the same way as modern physics is searching for a theoretical structure to explain the action of the smallest particles in the universe and the effects of gravity and other forces at the largest scale. Important strands of magic developed from Neoplatonic ideas, as we shall see.

Too rigid a classification of Medieval magic is dangerous, as attempts to understand and influence the world and its encircling cosmos varied greatly. But it is useful to distinguish so-called natural magic, where people attempted to understand and play with the forces and correspondences of the world, from forms of magic dependent on connections with angels and devils. Natural magical practices became more common in the later Medieval Period, when they were increasingly seen as legitimate. Such scholarly practices were boosted by translations from Greek, Arabic and Jewish texts into Latin or vernacular languages. An important centre for the

gathering and translation of magical texts was the scriptorium of Alfonso X of Castile and León (reigned 1252–84), where Jewish, Christian and Muslim scholars translated texts from Arabic and Hebrew into Latin and Castilian; a number of major works were translated, including the *Lapidario* (which explored the magical powers of various stones), the *Picatrix* (an Arabic compendium of magic compiled in eleventh-century Spain), the *Libro de las formas e imágenes* (instruction on how to use forms and images to magical ends) and the *Libro de astromagia*. The author of the *Picatrix* extolled the practitioner of magic as the perfect philosopher, who acquired knowledge through their own study of the cosmos and from books, but also from connections with spirits and through the power conferred on them by the conjunction of the planets at the moment of their birth.

It was the connections with angels and demons that brought natural magic closer to something more dangerous and esoteric, with inspiration coming from the bible but ultimately deriving from the beliefs in Mesopotamia and the eastern Mediterranean from the Bronze Age onwards ([Chapter 3](#)). The personification of good and evil occurred through angels and devils (seen in Christianity as fallen angels), and particularly skilled magicians could converse with or cajole these powers to encourage good or prevent evil. Augustine argued that everything that existed on Earth had its own angel, making them innumerable for any practical human purposes. Angels and demons allowed connections with the powers animating the universe in the spheres above the Earth and the realm below, partly relating to the earthly body but more especially to the soul.

Everyday magic in the Medieval world

There was a great spectrum of people practising magic, ranging from the cunning man or woman in the village, who dealt in charms or curses, to the local priest, who often felt that religious observances were insufficient to tackle all the exigencies of life and death, through to the learned magician, as celebrated in the *Picatrix*. Magical practices were often parasitic on the observances of the Church and priests practised, but not as they preached. For instance, charms for protection in childbirth were common and often took the form of a scroll wrapped round the body of the pregnant woman, supplied by priests. The so-called Harley Roll of the fifteenth century was multi-purpose, claiming to protect against a painful childbirth, insomnia and

death in water or battle; it depicted the three nails of the crucifixion, Christ's wound and four circular protective figures. Such scrolls were carried or wrapped round the body like a spiritual bandage, and they could be lent by priests to be returned when need lessened, as if from a magical lending library. Manuscripts with amuletic properties were many, and often combined sacred and magical words or symbols. Most were protective, but a small number had broader purposes. For example, manuscripts featuring Abraham's eye could be used to catch a thief; these are known from the ancient world, the earliest being a fourth-century Greek papyrus, through into the Medieval world. The eye is within a circle with other images and words, such as the names of angels, a key, hammer or knife. The manuscript was to be taken to a public place, where it was suspected the thief would be present; prayers were to be made over the manuscript and spirits named; then a knife driven into the eye (or a key is hammered into the eye) and at that moment, in theory, the thief would cry out in pain and could be apprehended.⁷

The Church participated in magic but also feared that sacred substances would be magically misused. From the thirteenth century onwards in England it was common for fonts to be covered and that cover locked, so people could not misappropriate the hallowed water for impious practices; when a child was baptized, its head was wrapped in a white linen cloth, the chrisom, but this had to be returned to the Church within a short period to prevent misuse. Fonts were not sacred in themselves, but long contact with baptismal water gave them an element of sanctity; when they went out of use they could not be casually disposed of, and around forty cases are known from England where old fonts were buried under or near their successor in the nave of the church.⁸ The host from Mass could also be put to uses beyond the church, with people keeping the host under their tongue and then using it for many purposes. 'Medieval stories relate how the Host was profanely employed to put out fires, to cure swine fever, to fertilize the fields and to encourage bees to make honey.'⁹ More seriously and more infamously, the whole Mass could be inverted: Masses for the dead were said for those still alive, to try to hasten their death. The normal white altar cloths were replaced with black ones, thorns were placed on the altar or around the cross, and lights extinguished. There is a clear implication in some accounts that the clergy took part in such acts.

Magic was also practised in and around churches and churchyards, sometimes with the connivance of the clergy. On occasions the living were afraid of the revenant dead, usually people with dubious reputations in life who might rise from their grave at night and haunt or attack the living. William of Newburgh (1136–98) tells of a priest, unpleasant in life, who rose from his grave at night. The alarmed local priests of Melrose Abbey confronted this ‘demon’ one night and attacked it with a battle-axe before it returned to its grave. When the grave was later opened, the corpse was found to have a fresh bleeding wound. In other cases steps were taken to prevent the dead rising: the skeleton in a Medieval grave east of Southwell Minster, Nottinghamshire, was pierced with iron studs through the right shoulder, left ankle and heart, presumably to stop it leaving the grave. In other cases the legs of the corpse were broken or even removed. There is the story told by William of Malmesbury around 1125 of the ‘witch of Berkeley’ in Gloucestershire: the woman foretold her own death and was worried that her corpse might rise, so she asked her children to ‘Sew me up in the hide of a deer, and then place me face upwards in a stone sarcophagus, the lid sealed with lead and iron. Bind the stone with three heavy iron chains.’¹⁰ People do seem to have taken revenants literally and taken practical steps accordingly.

As well as religious practices, such as Masses, more magical means were employed. Amulets were placed in graves to aid the passage into the afterlife. Pilgrims’ tokens of various kinds were commonly added to the coffin or grave but also lead tablets with spells or sacred verse. More broadly, people felt they had a reciprocal relationship with the dead, which could be one of mutual aid and benefit. The doctrine of Purgatory – a long-term holding pen in which the dead were held, awaiting judgement at the end of the world – was formalized in 1215. Deeds during life were the main determinant of whether people would eventually end up in heaven or hell, but the prayers of the living and Masses said for the dead might also have a beneficial effect. In return, the dead could attempt to aid the living. This notion of reciprocity might have been similar to that found in the prehistoric period in Europe ([Chapter 6](#)) but recast in a Christian idiom.

Talking to angels was a major preoccupation of those practising Medieval magic. Given the purity of angels, their potential human interlocutors had to go through purifying exercises that might take several months. In some cases the soul of the magician ascended to heaven while their body stayed

on Earth; in others, angels would descend to the magician and proceed with instructions. One of the most important manuscripts of instruction in angelology was the so-called *Ars notoria*, composed in northern Italy in the twelfth century CE and promising those following its instructions an understanding of all the significant areas of human knowledge through angelic revelation. The *Ars* combined Christian prayers and the inspection of *notae* – figures combining words, shapes and magical characters that looked like diagrams. Indeed, similar diagrams were used to lay out ritual spaces or to construct magical objects; if placed under the head while sleeping they might lead to dreams of revelation. A specially designed material culture was developed for communication with celestial bodies and with angels. Crystals were thought to be pure, so they were able to attract the purity of spirits and indeed entrap them. Crystal balls are found in pre-Christian graves in Europe, and were much used in the Medieval Period and through into the Renaissance, as we will see. Mediums could be used as intermediaries between the magician and spirits, and young boys were often favoured.

Greater dangers were encountered when conjuring demons through necromancy; the names of Christ and the saints were used to try to ensure compliance and truthfulness during interrogation. One famous demon, Floron (sometimes Floren), could be made to appear in a mirror, which had to be made of pure steel and polished until bright and shiny. The maker of the mirror had to be chaste, well washed and wearing clean clothes, and the use of the mirror in divining was carried out by a virgin boy. In some versions of this rite Floron would appear as a knight on a horse to reveal all of the past, present and future.¹¹ High-profile magicians gambled for considerable stakes: they could become powerful, influential and rich, but they could also meet untimely deaths. The astrologer Cecco d'Ascoli was burned at the stake in Florence in 1327 partly due to his relationship with the demon Floron.

Magic was practised across the whole spectrum of Medieval society, from the cunning man or woman in the village with spells, curses and herbs to those advising kings or bishops, drawing on many literatures and traditions. Medieval magic, as with European Medieval culture in general, combined many sources and influences from the Mesopotamian and Classical Greek and Roman worlds, sometimes refracted through Arabic sources but also showing the influence of Arabic thought itself, as well as

local practices. Magic had an ambiguous, close, dangerous but productive relationship with Christianity. Where miracles stopped and magic started was always contentious, the role of the priest was never straightforward, and the conjuring of demons or angels combined Christian and ancient thought with contemporary practices. Medieval magic was never static, and in time fed into the rich mixture of Renaissance culture, out of which came new magical practices and modern forms of science.

Renaissance magic

I claim that in the West, before the Enlightenment, educated people almost always believed in magic ...

– Brian Copenhaver, *Magic in Western Culture* (2015)^{[12](#)}

Magic, in both its learned and more popular forms, moved out of the Medieval world and into something we now describe as modernity. For both forms, we can draw on massive and difficult sources of textual evidence but also increasing amounts of physical and archaeological material.

Learned magic derived from two main sources: the writings of Hermes Trismegistus on the one hand and closely related forms of Neoplatonic thought on the other. Considerable continuity can be found with the Medieval world picture, with its hierarchy of eternal forms in the heavens and the changeable nature of the world below the Moon. Some distaste for the human body came through – we were literally incarcerated in our fleshly forms, desiring and requiring links to the realms above. Gradually the universe centred around the Earth gave way to a solar system; but along the way Giordano Bruno was burned at the stake in Rome in 1600, not only for insisting that Copernicus was right in saying the Earth revolved around the Sun but also that the universe was infinite. This latter statement was at least as radical as the first, making it impossible to sustain the structure of concentric spheres, as well as the links in the great chain of being from the corruptible Earth to the eternal heavens.

Magic did not die out at this point, but transmuted into something new. Underlying much Renaissance thought was the search for the hidden and for allegorical links between things that might appear different; the term

‘occult’ had a positive element in the sense that many magicians felt they were revealing and bringing to light hidden aspects of reality. Magic developed along various lines, from attempts to access a broad mystical sense of oneness with the true powers of the universe, such as felt by Plotinus much earlier, to astrology, to alchemy, in which base substances could be turned into more noble ones, and to iatrochemistry, in which chemicals were used to cure illnesses. Learned magic linked here to the vast experiment of more popular practices across Europe of protection, healing or harming. An unexplored but potentially important influence on magic in Europe was the multitude of contacts between Europeans and people on other continents, set off by Columbus’s first voyage to the Americas in 1492 and Vasco da Gama’s circumnavigation of Africa to reach India between 1497 and 1499.

A major body of learned thought was contained within hermetic philosophy. Hermes Trismegistus did not exist, but this did not prevent him from having a profound influence on Renaissance approaches to magic. The Hermetic corpus was probably composed in Egypt under the Greeks, drawing on a rich mix of earlier traditions ([Chapter 7](#)). Crucial to the influence of Hermes Trismegistus (Hermes the Thrice-Great) was his translator and commentator, Marsilio Ficino (1433–99). Ficino worked under the patronage of the Medicis, learning Greek in 1456 and starting to translate texts from Greek into Latin from 1462, the most important of which were the works of Plato, but also the hugely influential writings of the Neoplatonists, such as Plotinus, Iamblichus and Porphyry, not to mention the mysterious Hermes Trismegistus. Hermes excited Ficino and many others because of his supposed antiquity, about which there were many rumours, the most persistent of which made him a contemporary of Moses. The two supposedly met during Moses’s exile in Egypt; had this been true, such an encounter would have brought the major originating figure of the Judaeo-Christian tradition together with Hermes, who was considered to have inspired much in Plato’s thought. The writings of Hermes would have taken Renaissance thinkers back to the origins of the two major intellectual influences of the time: Christianity and Ancient Greek philosophy. The writings attributed to Hermes Trismegistus did indeed contain traces of both these strands of thought, because they were probably composed in the second or third century CE, and this was revealed

a century or more after Ficino's time through an analysis of the style of Greek in the Hermetic corpus.

The works of Hermes Trismegistus contain few explicit references to magic, beyond how to bring statues to life so as to create new gods in the world. What his writings contained – and here they linked with Neoplatonism – was a broader manner of thinking about the connections and links in the universe. Magic, philosophy and medicine were provided by the gods for human beings, Hermes wrote, and each was based around the notion of sympathy, particularly between the eternal forms in the heavens and their more mundane echoes on Earth. The universe was composed of chains of beings linked to each other. For instance, some things on Earth were linked to the Sun, including flowers like the lotus, which open their petals as the Sun rises and close them as it sets, or the cock that crows at dawn. Some of the beneficial qualities of the Sun, such as warmth and light, were to be found in the lotus or the cock: thus the former could be used as medicine for conditions of darkness and melancholy, while the latter could be sacrificed at a time when harnessing solar energy might be beneficial. The cock was superior in some sense to flowers, in that it could take to the higher realms of the air, not being Earth-bound; it was said that lions were afraid of cocks, which is puzzling, given the relative strength of each, but the explanation was based on the solar connections of the bird. Ficino and others also argued that there was a hierarchy of the human senses, ranging upwards from the supposedly basic engagements of touch, taste, smell, hearing, to sight, imagination and reason, allowing people to access various levels of reality.

Magic and philosophy were both empirical pursuits undertaken to tease out the physical skeins of connections between things that were not immediately obvious. Many chains of being existed, connecting particular things on Earth with those above and on up beyond the Sun, in this instance, to be fused into the Monad, which was the One. A mystical dimension was also needed to understand the celestial qualities of the realms above, beyond the reach of the human senses, but vital to everything that happened on Earth. As Pico della Mirandola wrote: 'The elemental fire burns, the celestial gives life, and the supercelestial loves.'¹³ Things linked in chains were attracted by mutual sympathy or even love, having qualities of being personal agents: the planet Jupiter, for example, is connected with plenty, tolerance and expansion, as well as higher learning, and the jovial

qualities of this planet contrast with the colder, saturnine nature of its neighbour.

Two strands of learned Medieval and modern magic, alchemy and astrology, became so important and pervasive that it is worth considering them separately.

Alchemy

When we say that alchemy had a long history, going back to the ancient Middle Eastern civilizations, we mean it had a long written history. Alchemy almost certainly had a much longer prehistory, back to the start of work with metals and probably beyond; only in the last few millennia has alchemical thought been written down. It may be that the word alchemy derives from Arabic, which is appropriate, as the Arab world was responsible for important developments in alchemy, some of which derived from Greek precedents that were transmitted to Europe through the translation of Arabic manuscripts from the thirteenth century CE onwards. Alchemy was compounded of a series of cross-cultural links between Mesopotamia and Egypt, but also between India and China, although links between East and West are still to be fully explored.

A crucial manuscript for more Westerly traditions is once again attributed to Hermes Trismegistus and is known as *The Green Tablet*. Whoever its author may be, *The Green Tablet* was written in Greek in Egypt around the second century CE. Metals were of special interest, as they were thought to sit at the apex of a hierarchy of materials, and metals themselves could be ranked from lead to gold, with many types in between. Chains of correspondences also linked substances on Earth to those in the heavens: lead was twinned with Saturn, gold with the Sun, and mercury (also called quicksilver) with the planet of the same name. Mixing metals into alloys, such as copper and tin to form bronze, was not so much a matter of bringing their physical properties together but of melding planetary influences. Mixtures of all sorts were seen to have power for just this reason. There was a notion that the world was slowly evolving from a more base state to one of greater perfection: lead would eventually become gold, and alchemy, in its more cosmological manifestations, would be the means to speeding up the perfectibility of the world and not just a way to get rich. Alchemy forms

an arena in which the huckster and the philosopher rub shoulders. This is part of its puzzlement and power.

The Arab world produced a number of crucial figures, such as Jābir ibn Hayyān, known to Europeans by the Latinized form of his name, Geberus or Geber. Jābir developed controlled experiments, crucial to later chemistry. He also felt that the root letters of the name of a substance in Arabic were linked to numbers, and numerology provided the key to the physical properties of various elements. In 1144 Robert of Chester translated his *Book of Composition of Alchemy* from Arabic into Latin, and this provided a more systematic framework in Europe for earlier varied forms of experiment with materials. In the twelfth century Toledo was a centre of translation from Arabic, which eventually gave English new words, such as elixir and alcohol; from the thirteenth century important figures such as Albertus Magnus in Cologne and Roger Bacon in Oxford synthesized these new sources, also placing them within a more Aristotelian framework. Bacon was interested in the idea of university, and for him both alchemy and astrology were vital branches of learning that any university should embrace; at a more practical level, Bacon and many others experimented in new laboratories; alchemy was not a purely theoretical matter. Important to some areas of experiment was distillation, which extracted components of liquids through successive processes of boiling and condensation; distillation was known among the Akkadians, who used it for making perfume in the twelfth century BCE; the Ancient Greek and Arab worlds applied it to the processes of refining alcohol and creating various medical tinctures. Distillation was widely seen as a method to purify substances or reduce them to their essences, crucial aspects of alchemical practices.

More cosmological dimensions of purity lay behind such experiments. It was thought by many that underlying the multiplicity of things in the world there was some purer, more unitary substance out of which individual qualities were differentiated. The search was then on for such an *Ur* material. Constant rumours went round that individuals owned a fragment of such a substance, which became known as the Philosopher's Stone. Taking a piece of such a stone and adding it to something baser, like lead, would transform lead into a higher metal, the most prized of which was gold. The human body might also be perfectible by such means, and of course the perfect body would not age or die; finely ground fragments of the Philosopher's Stone added to water, or an extraordinarily purified liquid

arrived at through skilled distillation, might act as an Elixir of Life. The charlatans of the Medieval and modern worlds were drawn in large numbers to the Philosopher's Stone and the Elixir of Life, with demonstrations of their miraculous discoveries to the rich, powerful and credulous, some of which were deemed to have been successful.

During the Renaissance the full Hermetic and Neoplatonic basis of alchemy was understood through theories of correspondence. Here alchemy approached medicine, through the practice of so-called iatrochemistry (*iatros* is Greek for 'doctor'). A central influence was Paracelsus (1493–1541), who combined astrological calculations as a means of diagnosis with a variety of modes of cure, many based on chemical knowledge sourced from Medieval alchemy. Paracelsus reformulated the Medieval theory of the Humours to argue that the crucial balance in the human body was between the Humours of Salt, which promoted stability, Sulphur (combustibility) and Mercury (liquidity), and said that illness arose when one Humour became separated from the other two. Where Paracelsus started to diverge from alchemical and astrological approaches to medicine was in his growing belief that some types of illness were a result of attacks from agents outside the body. In this he prefigured germ theory. Paracelsus was interested in syphilis, relatively newly introduced from the Americas, and developed laudanum from an opium base to help with pain; having followed correspondence theory energetically, he is now famous (or rather infamous) for the 'weapon salve'. If someone was stabbed by a dagger, Paracelsus would treat the wound with a chemical compound, but then also apply the same salve to the dagger responsible in the hope that salving the dagger would also speed the healing of the wound. Paracelsus was clearly not a stupid man and, although applying ointment to a dagger seems bizarre to us, it shows the power of the logic of correspondences that so many people followed in the fifteenth and sixteenth centuries.

Alchemy is notorious for being written up in obscure, allusive and coded language: this is because the more serious adepts did not want their discoveries appropriated by the uninitiated, but also because those so-called alchemists with no knowledge could pretend to understand things they did not. It is now, as then, hard to sort one from the other. Alchemy offered the chance to get rich, and the great learning on which it was based was often misappropriated by those less skilled and well read. Much the same is true of astrology, that other great branch of Medieval and Early Modern magic.

Astrology

Between the period of Shakespeare's greatest plays, towards the end of the sixteenth century, and the Restoration of the monarchy in England in 1660 we have a record of over 80,000 astrological consultations, mainly from two practitioners: Simon Forman (1552–1611) and Richard Napier (1559–1634) – as we saw in [Chapter 1](#). Forman taught Napier the principles of astrological science in 1597, and, while Forman's practice carried on in London, Napier returned to Great Linford in Buckinghamshire, where he was rector. Napier left his papers (which included Forman's records) to his nephew, Sir Richard Napier (1607–76), who also practised astrology, and who added records of his own consultations, which takes the history of their joint work up to the 1660s. All these papers passed into the hands of Elias Ashmole (the Ashmolean Museum, which he set up in 1683, bears his name), who gave them to the University of Oxford in 1677; they are now in the university's Bodleian Library. The majority of the records have recently been digitized and can be consulted anew on the web in twenty-first-century form, together with much useful background information on astrology, Forman and Napier, and ancillary information, including a video game, based on Forman, which is about to be released at the time of writing.¹⁴ Together these constitute the greatest single record of astrological work from Early Modern Europe, demonstrating also the seriousness with which people viewed astrology.

The 80,000 records in this archive derive from over 60,000 people who visited Forman and Napier in the same manner as we would go to a professional today, paying money for the advice they received. About 90 per cent of the clients' questions relate to illness (with the rest concerning marriage, career prospects, missing persons, witchcraft, legal suits and so on). The clients represent a spectrum of contemporary society from servants to nobles, children to the elderly. Most of Forman's clients came from London – we know, for instance, that Shakespeare's landlady had Forman cast her horoscope¹⁵ – while those visiting Napier were mainly from southern central England. Forman developed a system for recording questions, diagnosis and answers and he made his records faithfully; Napier adopted the same system but was a little more varied in his records. The records include the patient's name, age, some details about their condition, their question and an astrological chart for the position of the planets and

signs of the zodiac when the question was posed ([Figure 9.2](#)). In many cases the remedy or response is also indicated, so for medical conditions herbs, bloodletting and purges were required. In about 25 per cent of the cases the patient's urine is described (Napier was more keen on urine as a diagnostic tool than Forman); very occasionally blood samples were also taken. Sometimes the astrological chart was combined with other means, such as divination through the throwing of dice; and in over 1,000 cases archangels were questioned (although it is not clear how this was done). In looking at issues of health, no distinction was made between mental and physical health.

Various forms of astrology were practised by Forman and Napier. By far the most common was the horary consultation, which required specification of the positions of the planets and stars at the moment the question was asked. Seven planets were then known, which included the Sun and Moon (understood by many not to be planets, but the systems were based on their being so) and also Mercury, Venus, Mars, Jupiter and Saturn; by this time, records of planetary positions for various dates and times had been collected into tables called Ephemerides, which the astrologer could consult. Other forms of astrology were also practised but less commonly, and included the making of a decumbiture, in which the position of astral bodies was determined for the moment the person fell ill or took to bed, throwing light on the cause of their misfortune; an election required prognostication of planetary positions for sometime in the future to see when would be a propitious moment for a desired course of action; or an interrogation cast a chart to predict either the cause or consequence of an action that had already taken place. A nativity was also popular, which charted the stars at the moment of a consultant's birth to throw light on the overall course of their life. Even broader and more impersonal was so-called natural astrology, which was seen to be the science of effects of astral beams (the beams of astral bodies, seen as similar to the Sun's rays) on the general state of the Earth; a conjunction of malevolent planets or comets might cause war, famine, plagues or earthquakes. This is not something Forman and Napier appeared especially interested in.

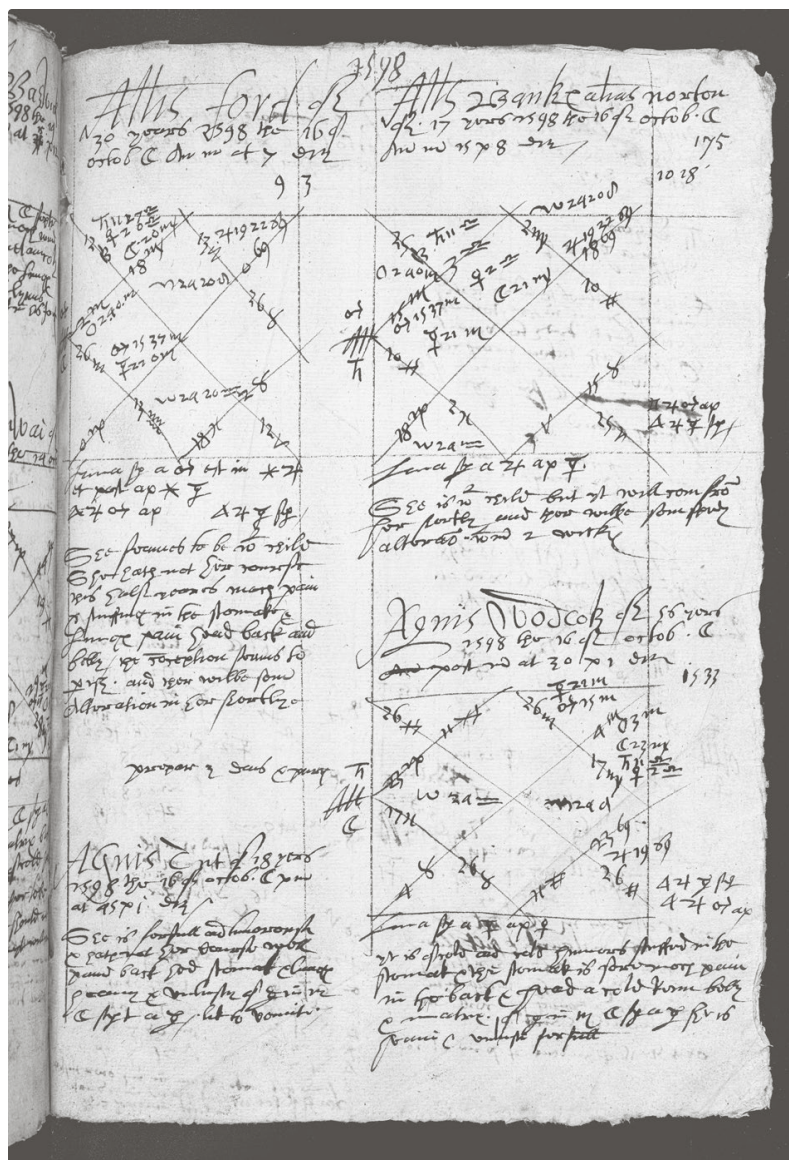


Figure 9.2. A page from Simon Forman's casebook for 16 October 1598. For each client an astrological chart is drawn in the form of diamond shapes and figures, with a record too of the question and diagnosis.

It is possible to draw some broader conclusions from the mass of intimate detail of people's lives Forman and Napier's records provide. Napier was rector in Great Linford for forty-four years and was clearly a most committed Christian – John Aubrey says 'his knees were horny from praying'.¹⁶ Although the practice of astrology might have been looked at askance by the Church, there is no sign that he was reprimanded, still less forbidden to practise astrology, which brought him in useful extra income.

Napier also prescribed amulets and carried out the occasional exorcism. Forman was a more contentious character and did fall out with various official bodies, but there is no sign that astrology was the cause. Impressively, he correctly predicted the day of his own death. Even more importantly, the number of people consulting them is striking. A good number of people returned to Forman and Napier for new consultations to address different issues. Astrology was obviously taken for granted by people across the social spectrum well into the seventeenth century and beyond; it was a practice of first, rather than last, resort many people adopted when ill, in trouble or about to make an important decision. The Church did not just condone it, but was relatively happy that priests were active astrologers and we know of others besides Napier. Forman and Napier themselves were serious about their methods, sometimes making cross-references between cases to see what had worked and what not. Napier especially would make a number of charts that covered different times – the onset of illness, the moment of consultation and so on, giving a sense he wanted to hone his skills and procedures. There is no sense at all that the two of them were fleecing people through practices they did not believe in.

Their practices were normal, not anomalous: in their papers other astrologers are named. Practices of this type stretched back at least to the High Middle Ages (from the eleventh to the fourteenth centuries) and forward into the eighteenth century and beyond. Many in England during these periods would have visited an astrologer, probably on a regular basis, to discuss the most important issues confronting them in their lives. The unusual aspect of Forman's and Napier's astrology is that their records have survived to the present, to be ordered and analysed with great skill by researchers today.

Astrology has a long history and it is in some way similar to that of alchemy in its development and transmission.¹⁷ As we have seen in [Chapter 3](#), the Mesopotamians made a mass of astronomical observations for astrological purposes over several thousand years, which fed into the Greek and Roman worlds, and from there into Arab learning. The translation projects of the twelfth and thirteenth centuries turned Arabic astrological texts into Latin, where they joined those of the ancient world, the most important of which by far was Ptolemy's *Tetrabiblos*. Ptolemy argued that the humoral temperament of the body at birth was affected by

the characteristics of the planets at that moment, as they influenced the Earth's atmosphere. These ideas, together with the mathematical calculations needed to determine planetary and astral influences, fed through into Medieval Europe, leading directly to the everyday practitioners such as Forman and Napier.

The human body is where astrology and alchemy meet. In the Medieval and Early Modern conception of well-being, the various influences on human health can be understood fully only through the chemistry of the body based in humoral theory, together with the conjunction of planets and constellations at the moment of birth, at the time of consultation or in their longer-term movements. No distinction was made between what we see as mental and physical health; the mind and body had not yet been separated. People were treated as a whole and also as part of the cosmos. This was holistic medicine at its broadest and throws modern conceptions and practices into relief; in particular, we are increasingly conscious of the wholeness of human beings, and the importance of our relationship with the world around us.

We can now see some of the complexity of Early Modern notions of the world, combining as they do elements that we now consider scientific with those more magical. In these men's work all three aspects of the triple helix – magic, religion and science – are apparent in combination. Two individuals who spanned the whole gamut of contemporary thought are John Dee (1527–1609), often labelled a magician, and Isaac Newton (1643–1727), the quintessential early scientist who is seen as helping give birth to the Age of Reason. The 200-year span from Dee's birth to Newton's death takes us from the very end of the Medieval Period to the Enlightenment.

Learned magic and science: John Dee and Isaac Newton

A comparison between Dee, whose dubious Elizabethan reputation as a 'conjuror' is debated to this day, and Newton, the founding father of modern science, will seem invalid or even impious to many. Dee's death and Newton's birth were separated by a generation. Dee became adult in the reign of Henry VIII and the huge changes caused by the Reformation, and himself had Catholic sympathies at some points in his life. (It is important that a crucial criticism of Catholicism by Protestants is that it was magical.) Newton helped to give rise to the model of Enlightenment thought, a

paradigmatic instance of the power of reason to comprehend the workings of the universe. They were, however, more similar than they might appear. Dee the magician, who was well versed in the mathematics, map-making and the astronomy of his day, is mirrored by Newton, whose three laws provided the foundation of physics until Einstein, but who nonetheless spent much time on alchemy, astrology and biblical prophecy. John Maynard Keynes said that Newton was not the first of the scientists but the last of the magicians; Dee is, in any case, attracting more positive attention these days, with his magical equipment on display in the Enlightenment Gallery of the British Museum, a special exhibition of his library and other materials at the Royal College of Physicians, London, and the opera *Dr Dee* by Damon Albarn and Rufus Norris.

I will explore the echoes in the practice and thought of Dee and Newton. There is an important broader point here. Out of the eclectic mix of thought and influences that made up the Renaissance we have tended to choose a few strands we feel are ancestral to the present, with the origins of modern science primary in this choice, and magical thought relegated to the weird and anachronistic. Newton is a treasured scientific ancestor; Dee pursued the dead-end that is magic. However, within the brains and bodies of both Dee and Newton were beliefs and hypotheses that mingled science and magic in ways impossible to disentangle. For instance, both were interested in the nature of light and thought about the refractive qualities of crystals and mirrors in physical terms that appeal to us, or, alternatively, saw light as emanating from the workings of angels, to which we are now less sympathetic. Newton's notion of gravity was prefigured by Dee, who posited a force to explain the influence of stars and planets on people, which was the basis of astrology. The Renaissance was productive of thought because it was so rich, fertile and messy, characteristics that in these more orthodox times we find unsettling because of their apparent contradictions.

Of course, Dee's and Newton's thoughts and cultural worlds were not the same. Dee existed in the febrile sixteenth century, always on the edges of royal courts from Henry VIII's onwards, giving magical advice to the monarchy but suffering as many setbacks as he did preferments. Political instability and a constant amendment of his thoughts and approaches in the hope of gaining royal favour never gave Dee the security to develop consistent lines of thought or research, and his written work, while large, is

dauntingly heterogeneous. Dee was a fellow of Trinity College, Cambridge, relatively newly founded by Henry VIII, but this never brought him enough income to live on; by contrast, Newton entered Trinity College as a student and his fellowship provided the security he needed to produce his mature work. Newton was born into the unstable political world occasioned by the revolt against Charles I, but was adult by the Restoration and was consistently supported by the monarchs of his lifetime, with that bastion of the establishment, the Royal Society, publishing his *Philosophiæ naturalis principia mathematica*. The instability of Dee's life and career, as much as his supposed reputation as a magician, may have held back his intellectual development, and here the contrast with Newton's life is important. Newton was able to construct a more consistent natural philosophy, of which later generations have emphasized the scientific aspect. Dee's more chaotic thought and writings gave him less later significance, but the more magical parts of his thought dominated the influence he did have, making him seem less relevant to later intellectual histories.

Dee's work and thought are impossible to summarize simply. He was motivated by a desire to understand the workings of the universe but also by the need to gain employment in royal courts, first in England and then Continental Europe. Magical practices and power were linked, with monarchs interested in new sources of wealth, through alchemy or creating the Philosopher's Stone; they hoped to acquire military power through the interventions of angels; and they longed for the ability to predict the future, either in the form of individual events or through a foreknowledge of the biography and career of individuals. In all these areas, and more, Dee claimed some proficiency. In making such claims, Dee was not a charlatan. Dee worked from bodies of theory and of practice that he had some belief would be effective, with his practice always having an experimental aspect to it. Underpinning Dee's philosophy was the Neoplatonism of the day acting in concert with Christianity, which, taken together, helped to emphasize the oneness of the ultimate reality underlying the illusory appearances of life. The Philosopher's Stone, it was hoped, would bring together the four basic elements of Earth, Air, Fire and Water into a singular element with the properties of everything in the world; it would enable the alchemical transformation of lead into gold, but it could also promote a fundamental understanding of the universe.

A further influence was through the teachings of the Kabbalah, deriving from Jewish thought, which searched for the unity underlying all world religions, which in itself would be close to the wisdom of infinity. One branch of kabbalistic teachings promoted research into language, taking the geometry of letters, particularly of the Hebrew alphabet, and searching for more basic shapes that might also be found in other scripts; the goal was a basic geometry of human scripts. Letters were also given numerical values, so that words could be transmuted into numbers, as we saw in [Chapter 7](#). The last quiet resonances of the word of God could still be faintly heard in all human language, and the word of God was congruent with the real shape of the universe. For Dee and many others following these infinitely complex strands of thought, knowledge was revealed by God to those suitably favoured, rather than discovered empirically or distilled into theorems or formulas. Searching for revelation was a spiritual and moral endeavour, not to be acquired through learning alone.

Dee studied in Louvain, Belgium, arriving at the university in August 1548 and focusing on astrology with the cartographer Gerardus Mercator (who created the most-used map projection) among others, building on the arithmetic, geometry, perspective and astronomy he had acquired in Cambridge. He was interested generally in ‘the heavenly influences and operations actual in this elemental portion of the world’ and more particularly in measuring the ‘rays of celestial virtue’ emanating from stars along with their light.¹⁸ Calculation of the angle of stars in the sky, their movements and distances would help to explain their changing influences: perpendicular rays were the most powerful. Dee then made thousands of measurements through to 1555, using instruments developed in Louvain; he felt that he was providing a newly secure empirical basis for astrology. Dee’s most famous piece of astrology was to determine the most propitious date for Elizabeth I’s coronation, which, after lengthy calculation, he set for 15 January 1559. As an insecure monarch, a Protestant and a woman, the nature and theatre of Elizabeth’s coronation was of extreme importance. That its date was decided by astrology is a mark of the esteem the technique enjoyed, as did Dee (although he rather more briefly). The British Museum holds five objects connected with Dee, including a crystal ball, wax seals engraved with mathematical and magical devices, an obsidian mirror of Aztec origin, a gold amulet (its link to Dee is somewhat dubious) and a wax

tablet engraved with a scene from a vision communicated by angels to his associate Edward Kelley ([Figure 9.3](#)).

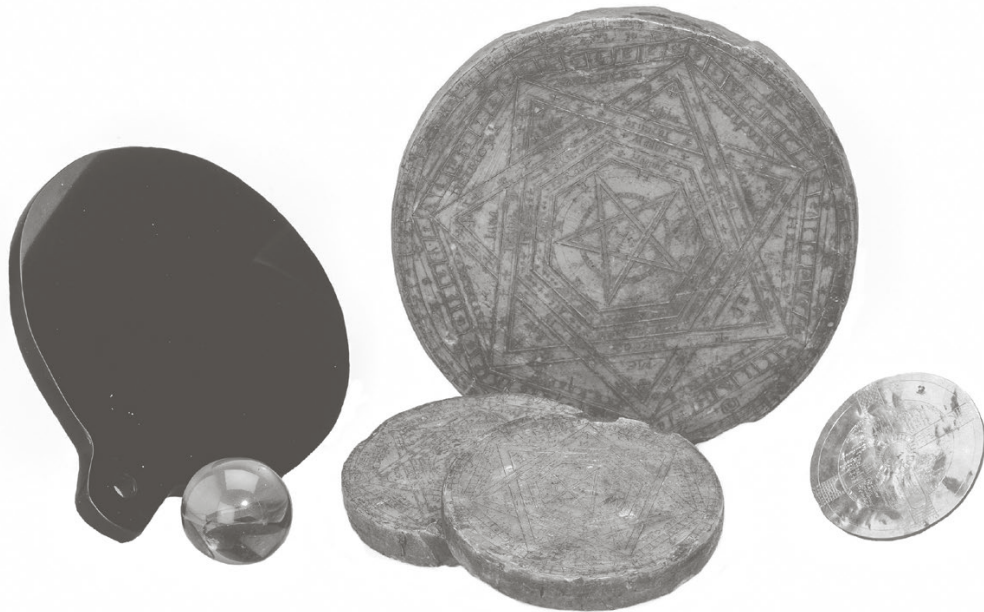


Figure 9.3. Wax tablets, crystal ball, obsidian mirror and gold disc belonging to John Dee.

Dee sought revelation the whole of his life, leading him into the most controversial aspect of his activities: talking to angels. He inherited a large house in Mortlake, on the Thames, from his mother, in which he was keen to set up a research institute, for which he unsuccessfully sought aristocratic and royal funding. Nevertheless, the Mortlake house contained his library, which became famous across Europe, as well as rooms for experimentation of various types.

In [Figure 9.4](#) we see the substantial figure of John Dee, tall, bearded, dressed all in black in his house at Mortlake. Dee is performing an experiment, which he would have called an ‘action’, to combine two elements, either to cause combustion or to extinguish the fire – we are now unsure which. Watching intently are Queen Elizabeth I and various powerful members of her court.

Sitting behind Dee is his controversial assistant, Edward Kelley, wearing a long skullcap to conceal that his ears had been cut off as a punishment for forgery. From the 1580s onwards Dee tried to talk to various spirits and angels, mainly through Kelley, his chief scribe, and his conversations with these entities are recorded in what Dee called his *Mysteriorum libri*

quinque. Dee and Kelley were attempting to reproduce the apocryphal *Book of Enoch*, written in the language of God, which had immense power within the world. Kelley communed with many spirits through crystal balls and the Aztec mirror, including the archangel Michael but also lesser spirits such as Uriel and Anael, all of whom at different times revealed not just words but a series of diagrams and signs that Dee attempted to reproduce. Dee's ultimate interest was in the divine forms and substances that underlay the visible world, which he referred to as 'pure verities'; Euclidean geometry, hermetic philosophy, Neoplatonism and alchemy were all used by Dee to arrive at the eternal beneath the apparent. Together Dee and Kelley travelled across Europe, enjoying audiences with Emperor Rudolf II in Prague Castle and King Stephan Báthory of Poland at Niepołomice Castle, near Kraków. In Prague, Kelley was given a position over Dee, for having created gold using earth brought from Glastonbury Abbey in Somerset.



Figure 9.4. John Dee demonstrating an experiment before Queen Elizabeth I at his house in Mortlake.

Dee is a plausible model for Prospero in Shakespeare's *Tempest*, who is an Italian nobleman who learned sorcery while stranded on an island and whose spirit Ariel calls up the storm in Act I that gives the play its name, thwarting also the intentions of those who wish to bring Prospero down.

Dee struggled throughout his life to navigate through the complex intellectual, religious and political currents in later-sixteenth-century Britain and Europe, dying in some poverty in London, possibly selling some of his books to buy food. His reputation after death was similarly low and it is only in the last few decades that sympathetic scholarship has led to some understanding of Dee's practice and learning as a whole, relocating him from the eccentric margins of Early Modern Europe to a more central, although still contentious, position. Dee's reputation in life and after death contrasts starkly with that of Newton, whose magical practices seemed to be the only stain on his reputation, throwing a dark shadow over his otherwise enlightened intellect.

Although Newton practised astrology to a limited extent, one of his main passions was alchemy. In some ways parallel to Dee and many since, Newton sought a unity of matter and causation underlying the apparent diversity of the world. And, as many others did, Newton sought the Philosopher's Stone ([Figure 9.5](#)) as the key to the unity underlying the universe. As mentioned above, recent thought about Newton's alchemical research has shifted radically from seeing this work as some sort of aberration or an embarrassing flaw in an otherwise great man to viewing alchemy as central to his work and thought. Newton spent a lot of time on laboratory work, first setting up two furnaces in his rooms in Trinity (interesting to imagine what the college's health and safety officer would make of that today) and then managing to colonize a shed near the entrance to the college, expanding his activities. Many years of intense practical work were complemented by the reading of a great range of texts from Hermetic philosophy to Descartes.

For Newton, physics and alchemical thought were both tools for arriving at fundamental truths about the universe, and it is possible that Newton was looking for a basic theory that would allow understanding of the whole workings of the universe; such a theory had been known to humans in their earliest history, perhaps before the Fall, and he felt he was recovering ancient wisdom, not developing something new. In pursuing these interests, Newton focused partly on transmutation. He made a distinction between mechanical and vegetal processes, the latter being both goal directed and able to mobilize the components of a plant as something that could grow, mature and die; Newton and other alchemists were looking for material transmutations that occurred down at some microstructural level of matter

that would echo vegetal growth and mobilize component parts into quite new forms. Alchemy held out the promise of understanding life and the emerging mechanical universe in the same terms – just as plants grew from seeds, maybe there were tiny ‘semina’ embedded within matter that would allow for directed growth in chemical substances leading to qualitative difference.

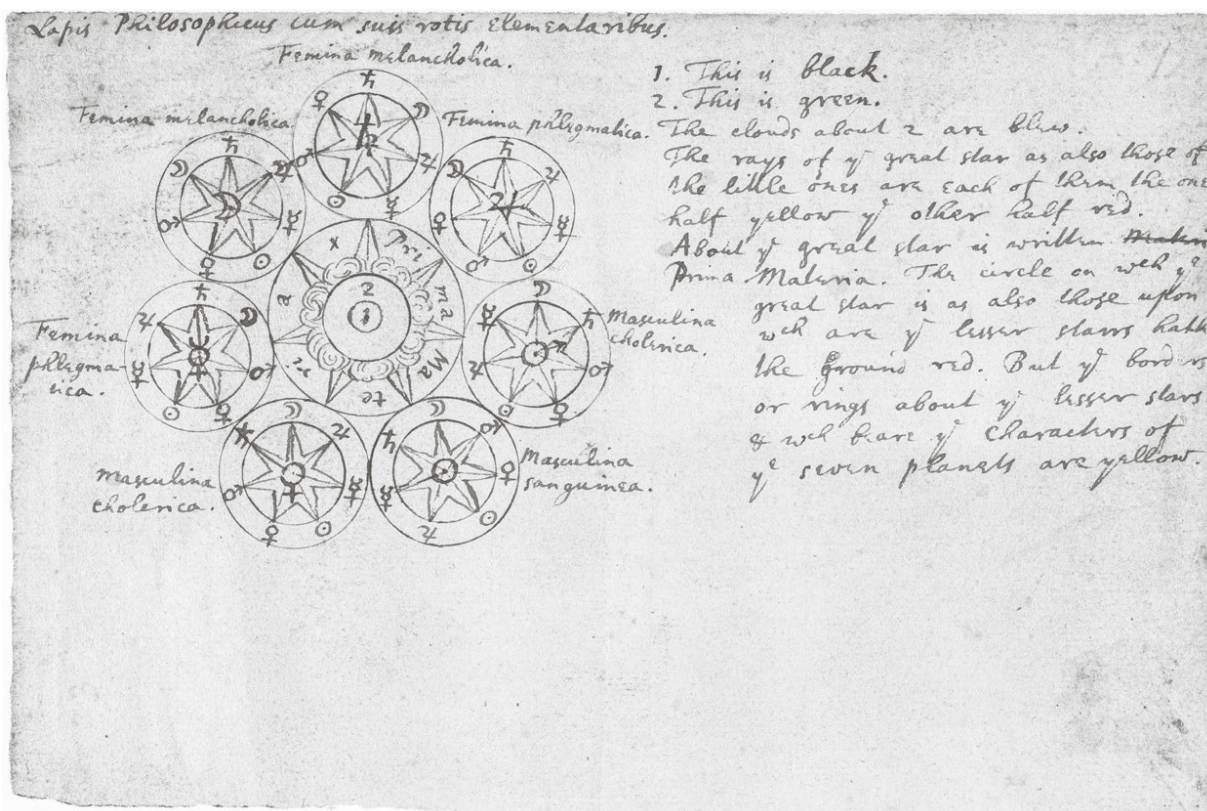


Figure 9.5. Newton’s sketch of the properties of the Philosopher’s Stone.

As a leading scholar of Newton, William Newman, has commented: ‘Indeed, Newton went so far as to develop a “theory of everything” that would explain organic life, the origin of heat and flame, the mechanical causes of gravitation, cohesion, the generation of metals and minerals, and so forth, by making an appeal to circulatory processes involving the interaction of metallic vapours, the atmosphere, and various forms of ether.’¹⁹ A closer look at Newton’s alchemy on the basis of newly collated or available documents ‘reveals at once a textual scholar intent on disentangling the riddles of alchemical encipherment, an experimental scientist keen on replicating the deepest arcana of the art, and a theorist

determined to incorporate chymical [that is, alchemical] explanations into his own theory of nature at large'.²⁰ Newton's more magical pursuits do not reveal an eccentric hinterland to his real thought, but rather a central arena in which all of Newton's enquiries met and mixed. The combination of old and new ideas, initially incompatible, may have spurred Newton on to theories of gravity, motion and optics that became so fundamental to science before Einstein. Whatever use was made of Newton's work after his death, it does seem clear that his intention was not to create a model of a mechanical universe. In his mind the workings of the universe were firmly embedded in a larger purpose to which people, as well as the actions of a deity, were integral. Alchemy and magical thought formed the framework Newton used to try, unsuccessfully, to create a fully holistic understanding of the universe. Dee's and Newton's thought may not have been as far apart as commonly supposed.

Witchcraft

If Newton represents the light side of magical thought, there was an obvious and still debated dark side, in the form of witchcraft: it damaged the reputation of magic, through the implication that much magic was malign; and the mad, internal crusade Europe waged against witches from the fifteenth to the eighteenth centuries did nothing to dissuade people that magic resulted from a pact with the devil.

Much magic was practised every day in the villages and towns of Europe, ranging from the learned art of astrology to informal means of foreseeing the future through fortune-telling; the dispensing of cures for people, animals and crops, well-developed methods of protection, together with the occasional curse, also fell under its umbrella. The white side of magic grew out of an understanding of the universe as God had made it, through ideas of Humours and the notion of sympathy and correspondences between the world above and that below. Black magic was seen as a perversion of such understandings by the anarchistic forces in Early Modern society, who wanted to use their power to destroy, kill and disrupt, often just for the sake of it. The fear of witchcraft derived in many ways from the dread of anarchy during these fertile but disrupting centuries, when many felt the world was being reordered, for good and bad. Sympathy for the devil lay at the heart of malign witchcraft, and, although not all witches were women,

there was a considerable element of misogyny involved, and a prurient sexual interest in lascivious tales of witches consorting with imps, devils and demons.

The numbers of deaths due to witch trials were huge, although not as large as some exaggerated estimates. Although it is impossible to be sure, a figure of around 80,000 for Europe and its colonies can be verified from the evidence.²¹ There were instances of children being accused and executed; others where children accused a witch who had caused them to be possessed, the witch appearing to them in a vision. The persecution of witches was not evenly spread across Europe, with some areas having few accusations and trials. Others suffered grievously. In the jurisdiction of Schmidheim, in the northern Eifel, Germany, lay a village of about fifty households. Between 1597 and 1635, sixty-one women and men were executed as witches, at an enormous physical and psychological cost to this small community. Full records of these trials exist in the private archive of the noble family originally responsible for the prosecutions. The vast popular and scholarly literature on witchcraft in recent years has been partly enabled by the analysis of written records of various sorts, although, again, their survival is uneven.

The emerging print culture of Early Modern Europe – pamphlets, newspapers and broadsheets translated between European languages – helped to spread accounts of lurid black magic, with equally compelling renditions of torture, trial and execution. The arrest, trial and prolonged execution of Peter Stumpp, the sorcerer and werewolf, near Cologne in 1589 were recounted in pamphlets in the Netherlands but also London (1590) and Copenhagen (1591). Cologne had recently become Catholic, and the accused was Protestant, so the accounts of Stumpp's sodomy, incest, rape and cannibalism may have had a political element;²² the religious divide between Protestants and Catholics led to this literal demonization of the other. The case of the Pendle witches in Lancashire was made famous through a pamphlet written by the clerk of the court, Thomas Potts, and this account fed into advice to later judges and juries; specifically it was held that some animal familiar or the existence of a witch's mark (an extra teat to suckle either a demonic entity or a familiar) was enough evidence on its own to lead to a conviction. Anyone could be accused and the accusations took many forms with equally varied types of evidence. Accusation was generally followed by physical and mental torture but also by the infamous

weighing or floating of witches. Surprising numbers confessed, perhaps because it was the only way to end their torment, albeit through execution by hanging or burning. The most lurid and unlikely accounts were of witches' sabbaths, where numbers of witches, usually women, consorted with devils and demons in the presence of animals, planning and executing spells or enchantments. Such mass subversion of the normal order could lead to large-scale trials and executions.

In Western Europe, from the mid seventeenth century onwards, the frequency of witch trials decreases, but in Eastern Europe this is when the trials proliferate: most prosecutions in Hungary occurred around 1650 and carried on into the next century. But the possibility of witchcraft continued to haunt Europe for centuries to come. The last woman in Britain to be imprisoned under the Witchcraft Act of 1735 was Helen Duncan, the Scottish medium. Duncan is a controversial figure, and there is still a group today lobbying for a posthumous reprieve. Her case is a strange one. Duncan started her practice as a clairvoyant but developed into a medium, who claimed to be able to communicate with the spirits of the recently deceased. She also extruded ectoplasm from her nose. She and her claims were subjected to scientific tests, and it was found that the ectoplasm was a mixture of egg-white and toilet paper, or sometimes silk. While communing with the dead she also worked part time in a bleach factory. In 1933 she was convicted of fraud, when a manifestation she claimed to be a dead child, Peggy, was found to be a vest stuffed with rags. A much more serious accusation was made during the Second World War, in 1944, when she claimed to have produced a manifestation of a sailor who had died when HMS *Barham* sank. For military reasons the sinking of the *Barham* had been kept secret, with only relatives of the crew and naval officials told, but many have felt that knowledge of such events did spread fast, and Duncan could easily have heard this through the normal course of gossip.

Duncan and some helpers were charged under a number of counts, but she was eventually found guilty under Section 4 of the Witchcraft Act of 1735, which made fraudulent spiritual activity an offence to be tried by jury. Duncan was prohibited by the judge from demonstrating her powers in court as part of her defence. She was found guilty and sentenced to nine months' imprisonment, which many felt disproportionate. The natural level of fear during the war created the conditions for Duncan's trial and imprisonment, a strange late echo of the earlier forms of fear that had

condemned so many others to even more serious fates. Today witchcraft is still practised, and its practice is now legal; it is often celebrated as an aspect of the female principle within magical circles.

Early Modern popular magic: the material evidence

Given the range of fears in Medieval and Early Modern Europe, it is not surprising that a varied set of materials and practices evolved across the Continent to protect churches and houses from attack by demons or witches, many of which are now just coming to light again. Over the last few decades major new sets of evidence for Medieval and Early Modern magic have emerged, and archaeologists and historians are starting to assimilate their prevalence and what they mean for beliefs during these periods. The evidence takes two main forms: protective marks in churches and houses; and deposits of materials, including shoes, animals, crystals and bottles in parts of houses deemed to be vulnerable to demonic attack.

There is a widespread belief, of unknown origin, that evil spirits of various kinds become mesmerized by a line and cannot help following it. If a line has no beginning and end, the demon, spirit or witch becomes trapped, endlessly pursuing the line. Right across Europe, from the Medieval Period onwards, a series of circular designs are found. Their first occurrence is within churches, and it was earlier thought that these were mason's marks, helping in the planning of the structure. Recent large-scale and systematic surveys of graffiti in British churches have revealed what one expert has termed 'an almost entirely new corpus of medieval material'.²³ Some graffiti are in the form of prayers and invocations, occasionally for special purposes, such as to protect those in peril on the sea. But much more common are these ritual apotropaic marks, known somewhat misleadingly as 'witch marks'. Although styles of church vary across Europe, circles, daisy wheels and the like are constant in form and frequency, being found in stone churches in northern Spain or wooden stave churches in Norway and across to Eastern Europe. Given their ubiquity, it is surprising that the creation of such symbols has no mention in historical records, providing evidence of hitherto unknown but extremely widespread folk activity.

The simplest of these marks is a single circle, but many are daisy wheels (also known as a hexafoils), with segments of circular lines that form six

lobes ([Figure 9.6](#)). Further marks are created by two overlapping V's, sometimes inverted to form an 'M'-shaped figure. There are also so-called 'merels' – squares or rectangles with lines drawn from each corner, crossing in the middle. Less common are swastikas, complex knot designs (so-called Solomon's Knots) and the five-pointed star known as a pentangle. Daisy wheels may derive from the Roman world, being found on Roman forts in Britain, where their purpose could have been quite different. Certainly from the eleventh century to the fifteenth they are common in churches. It is hard to tell whether they cluster in particular areas within churches. Protective marks were probably made on stone, wood and plaster, but early plaster either does not survive or has been plastered or painted over at a later date. Where a broader pattern can be discerned, concentrations round the font are common. Swannington Church, Norfolk, has many forms of graffiti, including inscriptions and geometrical designs; many of the latter cluster round the original position of the font,²⁴ and similar distributions are seen in other East Anglian churches. Geometrical marks are often described as compass-drawn, but it is possible, given their ubiquity, that they were made by some common tool, like shears, which have two blades joined by a loop of metal; one blade could have been placed at a point, then the other used to describe part or all of a circle. Shears were common household objects, often associated with women in paintings or burials.

The interior of the Medieval church was very different in appearance from churches of today. It is clear from careful examination of the walls that their lower areas were covered with brightly coloured washes of red, black or yellow, with painted depictions of saints or the life of Christ higher up. Graffiti can be hard to see on church walls today against a white background, but many hexafoils and other marks were inscribed through the painted plaster down to the stone, which stood out against a coloured background. The body of the Medieval church was an open, public space, with maybe a font breaking up the nave, used not just for services but a range of other communal activities; it was only from the late fifteenth century onwards that pews were put across the church or rood screens added. Within this space, for five centuries or more, people incised designs on to the walls of the church, where they would have been seen by all, and for some time afterwards the authorship and precise purpose of the marks may well have been known. The broader power and magic of the Church was mobilized through these marks, giving them extra efficacy and

protective power. While not part of the official ritual of the Church (and much of the Latin service would have been unintelligible to the majority in any case), the making of such marks was an accepted and recognized element of church use and influence, practised by many.



Figure 9.6. Varieties of hexafoils and other protective marks.

The Reformation changed much, of course. Religion shifted from being a communal matter to a more personal relationship with God. And the internal space of the church was restructured, divided up so that people of different social classes were restricted to their own areas. Domestic architecture also altered. The so-called Great Rebuilding, thought to have occurred between the sixteenth and seventeenth centuries, should not be taken too literally, as there was considerable variability in place and time. However, much domestic housing did move from wattle-and-daub constructions with a large central space and fewer private areas to more permanent buildings in wood, stone and brick, in which domestic spaces with more private areas were created, with second storeys becoming more

common. These more solid constructions have often lasted through to the present. As well as the architectural forms themselves, we can also see the steps that were taken to protect the house spiritually. Openings were vulnerable: witches or spirits could enter through chimneys, doors, windows or even keyholes. From the fifteenth century onwards circles, hexafoils and stylized letters are found in houses, not churches, where, although the form of the marks stays the same, their use and efficacy changes. For reasons we do not understand the need for protection against demons and other malign forces turns from the church to domestic spaces.

In the Early Modern Period such marks are not hangovers from Medieval magic but part of an evolving and shifting set of protective practices, now more private and familial, focused on domestic space. They are not randomly distributed but found around the entrances into the house: doors, windows and chimneys. Letters are often derived from the Virgin Mary's name in Latin – MARIA – which, when in upper case, can be drawn as straight lines. These are joined by various circular forms, such as circles and hexafoils. Such marks were found on wooden door and window frames, fireplaces but also important pieces of furniture, such chests and dressers. Dark spaces, such as those below stairs, were also marked. At Bedfield Hall in Suffolk, a house with some fifteenth-century structure but remoulded in subsequent centuries, there is a dark painted ceiling in the kitchen dating to around 1620 into which was scribed a great range of circular symbols of varying complexity on either side of a central wooden beam; some might represent a star map, deriving from astrological beliefs. Such symbols provided protection for the kitchen where food was stored and prepared, with a regular threat of fire. Protections against the devil and his minions multiplied across the house and on to the land. Bedfield Hall at this time was owned by Thomas Dunston, who is known to have challenged the devil to a duel in the form of a ploughing match, which dragged the iron spikes of the plough through the soil in which crops were grown, soil which might have been susceptible to devilish mischief.²⁵ Marks are also found in barns and storage areas, extending their protective range to animals and stored food.

Magic was exported when witches and demons accompanied the colonists. From the seventeenth century onwards in North America, as well as over the last 200 hundred years in Australia, a range of magical practices arrived with white colonists, not the least of which were protective marks. It

is striking to see hexafoils on the wall of a nineteenth-century barn in central Tasmania, clearly deriving from the practices of Early Modern Britain, still active in this later period 12,000 miles away. Hexafoils occur in barns in Philadelphia, perhaps connected with German emigrants there, as well as on gravestones in Nova Scotia. Such evidence is only just being recognized, and it is very likely such instances will now proliferate.

The second great area of protective magic was hiding or burying material things in various parts of houses. The most spectacular of these are the so-called 'spiritual middens'. Such middens are formed of collections of objects regularly deposited, sometimes over many years, in areas of a house such as a void next to a chimney or within a wall. How such middens worked is unclear: perhaps they focused on the inclusion of things connected to vulnerable people, who gained some protection thereby. In Montgomery, New York, five unmatched shoes, two socks from different pairs, a woman's glove, a knife, broken pots and pages torn from a bible among other things were found inside a plaster wall. From a nineteenth-century house in the Tasmanian Midlands, Australia, came a midden of thirty-eight shoes and boots originally worn by a variety of different people. Such practices hark back to at least the sixteenth century in Europe, where it was common to construct a lath-and-plaster framework around a brick chimney; into this void were regularly deposited a great range of personal and other items. At Barley House Farm, Suffolk, in a void next to a chimney, were found twenty shoes, all extremely well used and deposited at some point between the 1650s and 1730. Also found were animal remains, including pig's trotters, a vertebra, a goose wing, two kittens and a rat as a group, and split notched-sticks, perhaps used as a so-called clog almanac showing saints' days.

Objects occurred singly as well, with the so-called Bellarmine or Bartmann ('beard man' in German) bottles favoured, with depictions of angry bearded faces and medallions. Made in Germany, these were commonly imported into places like England from the later seventeenth century onwards. Bellarmine bottles were used for protection in a variety of ways. A Berkshire doctor, Joseph Blagrove (1610–82), wrote a book called *Astrological Practice of Physick* (1671), in which he advises that anyone who thinks they are bewitched should put urine, hair and nail clippings into a bottle, then add nails, thorns and pins; the latter objects should cause stabbing pains to the witch, who might reveal themselves and cease their

bewitchments.²⁶ Such bottles could be buried in a garden or hidden within a house as a mode of longer-term protection. It seems also possible to catch a witch, then trap them in a bottle, as is the case with one bottle from the Pitt Rivers Museum. The Museum catalogue entry for this object reads: ‘Small glass flask, silvered on the inside and said to contain a witch’. The bottle came from Hove, near Brighton, and was given around 1915 to Margaret Murray, a well-known Egyptologist and writer on paganism. Murray promulgated a theory that Early Modern witches were the last phase in a long and continuous tradition of witchcraft that went back into prehistory. Although the idea was influential in the 1920s on authors such as Aldous Huxley and Robert Graves, most would now see no basis for it, because it was rooted in the assumption that contemporary magic is the survival of ancient traditions, which is true but only in part. Murray may also have practised the odd spell, for instance to try to reverse academic appointments of which she did not approve, but such acts may have been more humorous than hopeful.

Together with popular magic, attempts were made to develop ritual forms. The most infamous practitioner is Aleister Crowley, born in Leamington Spa in 1875, who founded the religion of Thelema, an eclectic mix of European mysticism, Egyptian religion and a number of indigenous beliefs. A BBC poll in 2002 ranked Crowley the seventy-third greatest Briton of all time. The Golden Dawn, which Crowley joined, developed an unsavoury soup of racism, misogyny and beliefs in the supernatural. Crowley was interested in alchemy and was engaged in reviving some of John Dee’s magical practices, which did not enhance Dee’s modern reputation. Crowley held a rag-bag set of beliefs around the central term ‘Magick’, which he defined as ‘the Science and Art of causing change to occur in conformity with Will’, and his thought and life influenced both Scientology and the Wiccan movement. Whatever one thinks of Crowley, his influence has been considerable on the cultures surrounding magic, as we will see in the next chapter.

Much more could be said about many forms of popular magic – the onions, for instance, are part of a much larger class of things pinned or placed in chimneys, such as animal hearts or even a toad, and their smoking and drying was probably aimed often at harming witches. The evidence of popular magic that survives and that has been recorded must be the tip of a much larger submerged set of magical things and acts. It is only in the last

few decades that amateurs and professionals have learned to recognize that shoes, cats, bottles and marks are not accidental one-offs but activities with pattern and purpose.

Greatly varied recent activities remain to be documented across Europe. The French anthropologist Jeanne Favret-Saada worked in Normandy, western France, in the 1970s.²⁷ She became especially interested in the use of words in magic and wrote a beautiful account on a topic that the villagers she lived with were often reluctant to talk about. The villagers eventually identified five groups of magical practitioners: dowsers, who find hidden water courses using rods and other techniques; *toucheurs* or *cerneurs*, who use inherited knowledge to cure a series of conditions, such as warts, snake-bite, psoriasis or scab; diviners, who can find the reason for illness or ill luck but do not necessarily find a cure; *magnétiseurs*, who heal people or animals through their inner force; and *désenvoûteurs*, who counteract witches and witchcraft. Favret-Saada made the obvious point that such beliefs could not be restricted purely to the communities with which she worked; they must be much more widespread but often hidden from outsiders. Once again we can see our knowledge of magic is woefully partial.

The magic of onions

By the time the onions were hidden in the chimney of the Barley Mow in 1872, magic was supposed to be long dead. Science was in the ascendancy and modern medicine coalescing around germ theory; ideas of how people got sick or could be made well did not include the possibility that, as vegetables dried and shrivelled, so might the people with whom they had become linked.

The history of the death of magic has never been fully written, despite Keith Thomas's vital earlier work *Religion and the Decline of Magic*. Now many of us would question the extent to which the world became disenchanted, suggesting instead that magic has coexisted with religion and science through to the present in a complex triple helix. Undoubtedly a massive shift of attitudes and acts occurred with the persecution of witches and witchcraft in the Early Modern Period. A large and thriving network of 'cunning folk' existed in rural and urban culture, sometimes aided and abetted by priests, at other times in conflict with them. A minor ague, the

possibility of bewitchment or a sick cow could all occasion a visit to the person in the village or district who could diagnose and prescribe the right mix of substances and observances. As tens of thousands of people were executed and even more accused, the cunning folk were violently thinned out or hid their knowledge. The climate of fear must have been as damaging to magic as the actual trials and punishments. Miraculously, however, once the horror subsided from the seventeenth century onwards, practitioners of magic re-emerged, showing what an important role they played. We now have many named individuals for the nineteenth century and later drawn from various documents. The deposition of witch bottles, shoes or dead cats carried on well into the twentieth century, presumably partly due to advice from 'the wise'.

Hidden histories are being revealed. There is still a tendency, even in sympathetic accounts, to say that people 'resorted' to magic, as if it were the last refuge of the incompetent. It is true that part of magic's attraction was that it seemed to exist on the fringes, the sole preserve of eccentric people who held dubious attitudes while using outlandish objects. However, we can see that magic *is* central in all ages down to very recent times, and even now there is more magic than is allowed for in contemporary public rhetoric.

Making magic more central to cultural and intellectual history calls into question Western accounts ordered around rationalism, which was in the ascendancy from the Renaissance to the Enlightenment and on into high modernity. Rationalism was promulgated as an emancipation from superstition and folk beliefs, which were easily bundled together under the heading of magic. In the figure of Newton we can see a highly sensitive and intelligent person wrestling with how to reconcile a mechanical model of the universe with one that included life, human feelings and God; it is ironic that the term 'Newtonian universe' had become a shorthand for one in which force and mass allowed an understanding of the all-important aspects of the cosmos, until these theories were repositioned by Einstein. From the 1920s onwards quantum mechanics has started to develop, and, among other things, it explores the influence the observer has on the subatomic particles they are observing. This opened up new possibilities that the universe had a subjective dimension.

Two hundred years separate the death of Newton from the rise of quantum mechanics, a rather brief period against the timescales we have

been considering in this book. Magic did not die out in the complex shifts to the modern world; it was repositioned from a primarily religious context in the Medieval Catholic Church to a scientific and psychological milieu from the seventeenth century onwards. Newton embodied such shifts as he wrestled with the complex implications that a more mathematical and abstract view of force and mass had for his broader religious and alchemical beliefs. Newton might have been the first of the scientists, but he was certainly not the last of the magicians.



10. Modern and Future Magic

Arthur Conan Doyle and Harry Houdini first met in 1920, brought together by a mutual interest: spiritualism. Their friendship did not last long. There were ironies in their relationship from the start. The creator of Sherlock Holmes, that most rational and empirical detective, was convinced by many spiritual phenomena, while the greatest illusionist of the age was determined to demonstrate that spiritualism was trickery. Conan Doyle believed that Houdini was not just a supremely skilled escapologist but also someone who actually possessed magical powers, and in this belief he was not alone. Ironically, Houdini was on a crusade to show that spiritualism and various other forms of ‘magic’ were based on skilled trickery, so to be thought a magician himself was extremely vexing, especially by someone like Doyle, whom he initially respected. Houdini’s inability to convince Doyle that he possessed no magical powers caused a fracture in the relationship, exacerbated by their disagreement over a number of other cases.

Spiritualism was based on the idea that humans are composed of their physical aspect, the body, which is separate from the spirit; the latter can survive the death of the body, prolonging the existence of this more essential element of a person. Spiritualists variously tried to contact the spirits of the dead, gaining news of the after-life and possibly the future, but they also enlisted spirits to perform feats impossible without their help. Not all spirits were the ghosts of dead people; some were spirits of place or

more abstract forces. Bad spirits could also inhabit the living, raising the possibility that some forms of mental illness were caused by possession.

Spiritualism started as a movement on the east coast of America from the 1840s, at the same time that many were coming to doubt more conventional religious beliefs. Conan Doyle became interested in spiritualism in the 1880s, lessened his interest for a decade or two, then became more convinced around the First World War, at a time when mass death inclined many to seek out the spirits of the deceased. Conan Doyle was a member of the Ghost Club (www.ghostclub.org.uk) and the Society for Psychical Research (www.spr.ac.uk), both of which still exist. The latter describes itself as the 'first society to conduct organized scholarly research into human experiences that challenge contemporary scientific models'. Other members of these societies included Charles Dickens, W. B. Yeats, Siegfried Sassoon, Alfred Russel Wallace and Arthur Balfour – the establishment of late-Victorian and Edwardian times took concerns about spirits and psychical research seriously.

The Davenport brothers, Ira and William, claimed they received spiritual help for the activities that made up their stage show, which was a lucrative business for them. Their stage act started in 1854, in the early days of spiritualism, travelling first in their native New York State and then to many places, including Britain. The most famous of the Davenports' acts involved a large mahogany cabinet, which they called a Spirit Cabinet, in which the two men were tied with various ropes. The cabinet also contained a cowbell, a tambourine, a guitar and a violin, and as soon as the doors of the cabinet were closed the instruments began to play, even though when the doors were opened the Davenports were found to be bound. A number of illusionists had stage acts of this kind; the Davenports raised the stakes when they claimed not to be illusionists but men aided by spirits. It is possible that their father, an ex-policeman from Buffalo who became the Davenports' manager, saw the so-called Shaking Tent ceremony, common among Algonquin-speaking groups in North America, and used this as a model for his sons' act. The ceremony is one of a number of séance-like performances common among the Inuit and native groups further south; in it, a shaman is bound in a tent from which the sounds of musical instruments emerge. The shaman is found either still bound or free at the end of the ceremony, and the audience has no doubt in these cases that spirits have been summoned. The Davenports' stage act using the Spirit

Cabinet took the same form as séances common in the late nineteenth century on both sides of the Atlantic, but magnified them into a much larger form for the stage.

Houdini met the surviving Davenport brother, Ira, in 1910 in Mayville, New York (William died young, in 1877). Ira revealed to Houdini the knot that the Davenports could slip out of but also, more importantly, back into, while in the cabinet. Later in 1924 Houdini wrote a book exposing mediums and their activities at séances – *A Magician among the Spirits*. Houdini's position was complex and interesting. The greatest illusionist of the last century became the great debunker of illusions ([Figure 10.1](#)). Conversely, Houdini was keen to stress the physical skill and strength that formed the basis for his act and to reveal the tricks employed by others, many of whom claimed not to be tricksters. Houdini himself became the subject of myth-making, seen by some as having shamanistic powers; and Conan Doyle was not alone in considering Houdini to be a magician, a view expressed in his book *The Edge of the Unknown* (1930). Conan Doyle's two-volume work *The History of Spiritualism* (1926) was an argument for the veracity and validity of the spiritualist movement, citing, among many other cases, the Davenport brothers and the Spirit Cabinet as an instance when people were able to summon spirits.

Important issues were contained in the disagreements between Houdini and Doyle that resonated elsewhere. First was the issue of evidence and how different people were either convinced by, or sceptical of, exactly the same set of events, such as the activities within the Davenports' Spirit Cabinet. The creator of the arch-empiricist and logician, Sherlock Holmes, was famously credulous. Houdini took a lot to be convinced of other-worldly phenomena. Deeper issues were also involved, concerning the nature of the person and of reality more broadly. Were people divided into body and spirit, with the latter surviving the death of the body? As scepticism concerning religious belief grew, so did doubts about life after death, which in turn threw notions of the composition of the person into doubt – perhaps people did not have souls or some form of immaterial reality? Furthermore, if spirits existed they must inhabit some realm beyond everyday reality, implying that there could be a series of parallel worlds, with communication between them possible under certain circumstances; the world we see, hear, feel and smell every day is part of reality and not the whole of it. It is further possible that those dwelling in other realms had

knowledge of our world that we do not: spirits may be able to see the future or understand the deeper causes of events that mortals cannot perceive. Notions of hidden realms became important both to an emergent psychology, in Freud's idea of the unconscious, and also to quantum mechanics, which sketched out forms of reality very different from that which we inhabit.

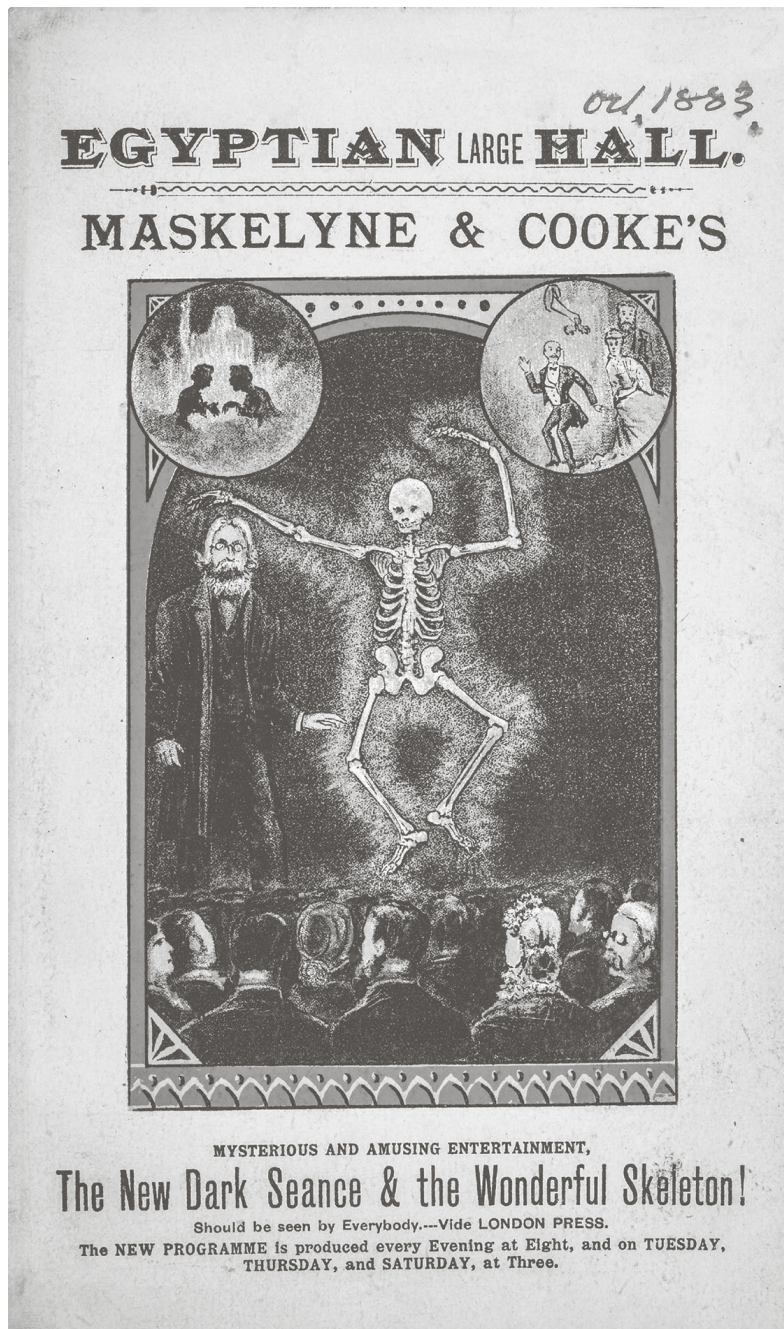


Figure 10.1. Many séances were obviously held for entertainment and profit. The Egyptian Hall (a homage to Ancient Egypt in Kensington) was home to many performances, and Maskelyne and Cooke were the most successful entrepreneurs of the late nineteenth and early twentieth centuries. Flyer for a performance in 1883.

Freud himself wrestled with the problems of spiritualism and magic, becoming gradually more convinced about a range of phenomena, such as the existence of ghosts and the possibility of telepathy, rather than more sceptical. In 1909 we find him visiting a medium in Vienna, an encounter that raised questions he could not entirely dismiss. In 1910 he presented a paper to the Vienna Psychoanalytic Society on spiritualism, and in one meeting of the society a psychic medium was brought along, although people were generally unconvinced by the medium's telepathic powers. In 1911 Freud joined the British Society for Psychical Research, and this time was more convinced by a séance. Later Freud even took the role of a medium himself. By the 1920s he was seriously entertaining the possibility of telepathy, both through dreams and in waking life, although it is also true that some of his friends urged him to tone down his positive comments on psychical phenomena in his talks and writing. Overall, the relationship between psychoanalysis and spiritualism is a complex one. Freud's broad point – that underlying the working of our more rational mind is a less rational one, wrestling with various urges, often sexual, and their repression – finds echoes and maybe inspiration in the hidden worlds of spiritualism. Psychology, in its Freudian forms and other variants, changed the environment in which magic existed in the Western world, as deeper realities were sought beneath surface appearances.

A very different figure, a younger contemporary of Freud, also sought hidden forces, not least through sexual energies. This was Aleister Crowley ([Figure 10.2](#)), whom we met briefly in the last chapter. Crowley delighted in being an anti-hero and even his mother called him The Beast. Crowley's sympathy for diabolic forces was part of his desire to disrupt and destroy belief systems and the forms of bourgeois and aristocratic life around him. Crowley's beliefs were varied and chaotic, making it hard to sum up a single philosophy that he developed or espoused. Independently wealthy until he spent his inherited fortune, Crowley was free to try many things, including mountain climbing, yoga, painting, drug-taking, writing poetry and prose, theatrical performances and magical practices; if there is a thread running through his thought and activities, it is an emphasis on the will and its unfettered realization.

Taking inspiration from Nietzsche, Crowley looked forward to the rise of supermen (and they were male in his mind), whose exercise of will was not restrained by social norms or niceties. It is not clear what he meant by will,

but most likely the will referred to the pursuit of urges and energies he felt were a natural part of all human beings. Here Crowley's thought and practice drew on broader forms of sex magic, in which it was felt that during sex, and especially orgasm, people most obviously channelled broader cosmic energies, which could sometimes lead to procreation. Human energies could and should be joined to the broader energies of the planet, partly through inhabitation by divine forces – Crowley claimed to have been contacted by a spiritual being called Aiwass while on honeymoon in Cairo in 1904 after he married Rose Kelly. Aiwass revealed to Crowley *The Book of the Law*, the precepts of which would usher in the Æon of Horus based on a new religion called Thelema. Thelema means 'will' in Greek and the main injunction of the book is 'Do what thou wilt.' Crowley's basic definition of his practice was: 'Magick is the Science and Art of causing Change to occur in conformity with Will.' Crowley's magical order, going under the name of A.'.A.'. , was set up to promulgate 'Magick', based on the unfettered pursuit of the Will.

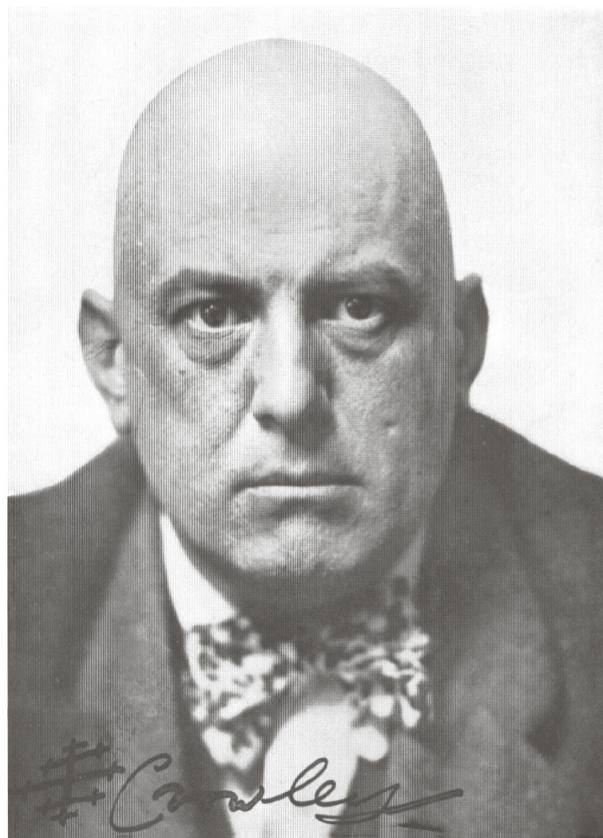


Figure 10.2. Signed portrait of Aleister Crowley.
Originally published in *The Equinox* (1913).

Crowley grew up as a member of the Plymouth Brethren, who believe that history is divided into various ages, each of which poses its own challenges and tasks needed to meet the problems of the time. Naturally, Crowley saw himself as the messiah appointed to lead the world into the challenges of the Æon of Horus, which centred on unleashing the human will fettered by mass society. It is worth noting that so-called New Age movements look forward to a change of æon in which new possibilities occur, most famously through the Age of Aquarius. We should also bear in mind that the term 'New Age' is generally used by the critics of such movements rather than by their believers.

Like many others before and since, Crowley looked for connections and correspondences between things that could form the basis for sympathetic magic. Sets of correspondences potentially existed between many things, it was thought, but these connections were most fully manifest through their symbols or concepts, giving an idealist and mystical dimension to Crowley's thought that contrasts with more materialist approaches to magic. He helped to develop a new set of tarot cards, in collaboration with the artist Frieda Harris, which helped to categorize people's characters into limited suites of types. People could then connect to various objects – swords, wands and so on – particularly suited to them. It was hoped that the symbols used on the cards would resonate not just with European and Egyptian belief systems but with those of all the world, providing the basis for global connections and actions. There was also a sense that magicians needed to go back to older, purer forms of practice, so Crowley used the term 'Magick', the archaic spelling indicating the re-creation of older beliefs, such as those transmitted to him by Aiwass, who might have been some sort of Ancient Egyptian deity. The random nature of Crowley's philosophy and his propensity to fall out with people meant that he was a member of many societies over the years, so paradoxically his influence on later magical organizations has been considerable, especially the more hierarchical ones such as the Golden Dawn and Ordo Templi Orientis.

If the numbers and varieties of groups engaged in magic are a guide, then magic is alive and well today, rapidly taking on new forms but also using social media and apps that bring magical possibilities to younger audiences especially.

Contemporary Western magic

From the nineteenth century people such as the sociologist Max Weber argued that industrialization, education and a growth of rationalism brought about a secularization of Western society, with belief in religion and magic both declining. Religious belief is complex, and, although atheism is more prevalent in Europe than it was, this is not straightforwardly so in the US, where indeed in recent years doubts about science have grown. Magic is definitely part of contemporary world-views, and around 75 per cent of the adult population of the Western world hold some belief in magic or the paranormal – which means that several hundred million people have beliefs that are supposed to lie outside the mainstream. A survey of over 35,000 Americans carried out by the Pew Research Forum in 2007 revealed that 79 per cent of those polled felt that ‘miracles still occur today as in ancient times’.¹ A much smaller sample in Britain revealed that 77 per cent agreed that there were things happening in the world that could not be explained by science and might best be described as paranormal. Large numbers also visit places like Stonehenge on the summer and winter solstices, although in the thousands rather than millions. In the 2011 census in the UK 56,620 people identified themselves as pagans and 11,766 as Wiccans, and a further 1,276 described their religion as witchcraft, which are tiny numbers out of the 21,000,000 included in the census but still the tip of the iceberg when it comes to the total number subscribing to some aspects of magical belief.

There are declining levels of religious adherence among younger people, who often cultivate spiritual beliefs of various kinds. Young women are particularly attracted to magical female figures from the rather older Buffy the Vampire Slayer to more current Big Witch Energy. Coming out of the spiritualist movement of the late nineteenth century in the US came a new technology, much in use today, that supposedly allowed for communication with spirits: the Ouija board. These boards (the name is a combination of the French and German words for ‘yes’) have the letters of the alphabet, numbers 1–9 and sometimes the word ‘goodbye’ printed on them. A smaller planchette or pointer can be moved across the board by the fingers of all those present at the séance, who thereby receive messages from the dead and other spirits. A series of films play with the idea that evil emanations are released through using a Ouija board, and, although these

rarely receive critical acclaim, they are popular with audiences and profitable for film companies nonetheless.

Many people's lives are shot through with low-level magic, which is not just to do with black cats crossing their path, wariness about Friday the Thirteenth, walking under a ladder or saying 'bless you' when someone sneezes. Lots of people carry lucky objects or amulets, and many of us worry about breaking a mirror or look forward to snapping a wishbone. We have lucky colours or days that we feel are favourable; and numbers can often have positive (the number 7) or negative (13 and 666) connotations. Objects have power in various ways – most of us would find it very hard to stab a photo of a loved one – and we have all probably sworn at our printer or car when it stops working, treating it like a recalcitrant animate being. We search for correspondences and coincidences in our lives, which can possibly be attributed to some form of power working in the world. We are embarrassed by such actions and beliefs, often treating them in a knowing or ironical manner, but they are widespread and acted upon nonetheless.

Organizations promoting magic

As well as having such informal beliefs, many people belong to organizations that develop and promulgate magical practices. Organizations, starting with the Golden Dawn in the late nineteenth century, have been important in the generation of magical ideas that then circulate through the population more broadly, thus having a considerable cultural effect – although the non-magical majority would view such organizations as either eccentric or dangerous. The history and state of groups dedicated to magic often become extremely complex as organizations fission and fuse again. On the one hand, histories emphasize a handful of seminal figures, such as Aleister Crowley or Gerald Gardner (who started the Wiccan movement, as we will see), slanting the narrative so that all history revolves around them. On the other hand, a great tangle of groups exists with complementary or contradictory aims: these groups sometimes ally but more often than not fall out or break up. I provide a summary in rough chronological order of major organizations and groupings, some with their origins in the Early Modern Period in Europe, and all still active today.

The Rosicrucians and Freemasons (sixteenth century to present). These are two obviously separate organizations, although with some mutual

influence – it has been argued that the Freemasons may have arisen from within Rosicrucian intellectual frameworks and organization. With the Rosicrucians we encounter many of the strands of thought and magic that we met above, including Hermeticism, the writings of John Dee, alchemy, astrology, Kabbalah and much more. The Rosicrucians were convinced there was a hidden order to the world that, when discovered, would unleash a great power, capable of harnessing the material substrate of the world for human benefit and reforming human society into a state that was healthier and free from sin. Rosicrucian ideas came together initially in the early seventeenth century, with an obvious Christian dimension, making this an organization that combined religion, magic and science around the idea that important knowledge must be kept hidden until it was perfected, at which time it could be revealed to humanity as a whole to great global benefit. The Freemasons also kept their knowledge hidden; they claim older origins, and the first documented Lodge is one in Edinburgh, set up in 1598. Freemasons are famous for their complex and hidden rituals, rolled trouser legs and secret handshakes: people (men only until very recently) were, and are, initiated into three grades of masonry known as ‘Entered Apprentice’, ‘Fellowcraft’ and ‘Master Mason’. Although they do trace their origins back to the Temple of Solomon in Jerusalem, Freemasons are less interested in developing esoteric knowledge than the Rosicrucians.

The Hermetic Order of the Golden Dawn (1887–1903). This was set up by three Freemasons and had similarities to the Rosicrucians in structure and some beliefs. There was initiation into three orders of increasingly secret and powerful knowledge, based partly on supposedly ancient wisdom. The third tier of knowledge allowed for communication with the Secret Chiefs, spiritual entities of some sort, supposed to wield great power within the universe. Their philosophy was partly based on the Kabbalah, but also involved knowledge of astrology, alchemy, tarot and geomancy. They have as their foundational texts the *Cipher Manuscripts*, a compendium collection of magical knowledge and theory, and an organizational structure based around temples.

Ordo Templi Orientis (known by abbreviation O.T.O.). This started sometime between 1898 and 1906 and still exists today. O.T.O. was, again, modelled on Freemasonry and had close links to the Golden Dawn – Aleister Crowley was a member of both. Once again there was initiation into increasingly secret knowledge, and its intellectual framework came to

be based around Crowley's notion of Thelema – 'Do what thou wilt.' It contains echoes of mystical Christianity and influence from Emanuel Swedenborg (1688–1772), who started his intellectual life as a scientist, but, after an episode of spiritual awakening, found himself able to visit heaven and hell, and talk to angels and devils. His composite philosophy had a strong influence on mystical Christianity and magical beliefs, as well as on many individuals, including Conan Doyle. There was a strong emphasis on ritual, such as the Gnostic Mass; on complex symbolism as a means to understanding the universe; and on attempts to channel energies, partly through sex magic. This order looks forward to the possibility of a new æon, and its beliefs and structure overlap with Crowley's organization A.'.A.'. and various others. Crowley's notion of Thelema and his emphasis on sex magic also influenced Scientology, another secret organization surrounded by great controversy.

Wicca (1920s to present). Set up by Gerald Gardner, long-time civil servant in Malaysia, who returned to England and claimed to have been initiated into a witches' coven in the New Forest, Hampshire, in 1939; he met Crowley in 1947. Wicca is not a single organization and has a very different set of structures to those mentioned above, being much more loose, open and egalitarian. The word 'Wicca' means 'witch' in Old English, and there is an emphasis on witchcraft, which is seen as a surviving pre-Christian religion emphasizing both male and female principles, influenced by Margaret Murray among others. Wicca and paganism overlap in their rooting beliefs in ancient Europe, an emphasis on connections with nature and the prominence given to the feminine principle (sometimes a mother goddess).

Paganism (post-Second World War). A deliberately eclectic grouping of beliefs and people, which often hark back to a period prior to the rise of the world religions, supposedly drawing on ancient wisdom of various types. It can be controversial when they channel non-European traditions, as native groups see this as appropriation. Pagans emphasize kinship with nature and the female principle/mother goddess, as well as the desire to do no harm. Wicca is in many ways a subset of pagan beliefs, which also include Druidry and shamanic beliefs.

Chaos magic (post-1970s). This is often seen as results-based magic, emphasizing outcomes over beliefs or formalized practices. It experiments with techniques, often those that focus on random methods in the search for

meaningful coincidences – such as throwing dice or cutting up words that are then placed in random order. Chaos magic places emphasis on the importance of a generalized life force active in the universe with no set structure or pattern, and it is sometimes seen as the postmodernist aspect of magic; and on abstract symbols and altered states of consciousness giving access to other worlds. Chaos magic enjoyed considerable mutual influence with broader popular culture, taking symbols and ideas from the novels of Michael Moorcock but also influencing comic book characters and storylines.

In this brief history we can see that earlier movements had a set organizational structure, often heavily influenced by Freemasonry; they were male-dominated and leaned towards doctrine and standardized forms of practice, mirroring the structure of religious services. Later magical forms are more open and fluid in their structures, amenable to debate about their beliefs and definitely experimental in their actions, peaking in the controlled anarchy of chaos magic. Nevertheless, there are some common elements, including a reaction against what is perceived as an overly rational approach to the world and a determinedly counter-cultural attitude, intending to subvert or overthrow what is seen as mainstream thought and lifestyles. Certain broader intellectual aspects are also shared. There is a general emphasis on spirits of various forms, from the human dead to those of the landscape or more abstract universal forces. Spirits sometimes inhabit this world, but may often exist in some parallel reality, posing problems of communication that require a specialist (the shaman) or certainly particular techniques, such as the Ouija board, as we saw above. Communication with spirits can be beneficial but also is often dangerous.

An emphasis on energies is also common, connecting the human body to broader energetic flows through the universe. Various East Asian models of energy may be called on, such as *ch'i* or *prana*;² tantric techniques or yoga might also be used. Techniques for unleashing the repressed or blocked energies of the body are general, sometimes taking the form of sex magic, as sex is seen as a powerful creator and purveyor of energy. A further and slightly related dimension is the common need to free the human mind to perceive the universe more fully or accurately. The use of mind-expanding or altering drugs are a favourite element. An education of the mind through the use and understanding of symbols is regularly found, as well as

techniques of meditation, fasting or seclusion. Lastly, it is often crucial to understand the world as information, to know what the world is telling you through uncommonly recognized signs such as birdsong, or the combination of events. Information fields allow for two-way flows: a magician might transmit information to the world through symbols of actions in the hope of realizing a specific effect; there may well be an experimental dimension here, along the lines of a scientific experiment. Contemporary magic is not afraid of the mad and eccentric, which can lead to danger or repression in the hands of a charismatic but unscrupulous character aiming to impose their own will on the world for personal benefit. But also the radical questioning coming out of magical practices at their best allows for explorations that reach into the nature of the person and personality on the one hand and out into the universe on the other, areas that have come to be rigidly divided by the disciplinary structure of science.

Magic occupies a particular set of positions within the cultures of the world. Many major thinkers from Newton to Freud have not just entertained magical beliefs but have used the stimulus from magical thought to develop their core ideas. Magic has been a creative force, not an eccentric distraction. It used to be thought that magic was dying out in the West and probably elsewhere, along with beliefs in God. We can now see that neither is happening. Indeed, magic can be recognized as an important and continuing aspect of all human cultures wherever in the world they are. Magic is alive and well, raising questions of what we can do for magic to make it most productive culturally and what magic can do for us in providing solutions for some of the big issues currently facing the world. If we refuse to choose between a rationally based understanding and a supposedly more romantic notion in which human connections to the world are central, what will this do to our approaches to the world?

As with all previous ages, big questions confront us concerning what it means to be a human being and what capabilities we have, together with the even bigger question of the nature of reality and the universe as a whole. Such questions were framed around a division between human subjectivity and a cold, mechanical universe. Scientists are now exploring whether the universe as a whole exhibits some form of consciousness and what this realization might do to our sense of kinship with reality as a whole. There is some profound rethinking under way that may well reconfigure the triple helix of magic, religion and science, so that these strands blend and mix. In

this last stop on our journey we can consider, drawing on contemporary science and insights from magic, how such a blending might occur.

Magic today

An ecological disaster is upon us. It is caused by human actions. The planet is warming rapidly, with a collapse of the fundamentals of the biosphere in all parts of the world. Mass extinctions are common, perhaps most worryingly in the smaller, less spectacular species, such the insects that make up the foundations of many ecosystems. Tipping points are generally expected, due to some combination of the loss of forests in many parts of the world or the disappearance of the Arctic ice during the summer. The globe regularly experiences the hottest year on record, with each year warmer than the last. Shortages of water in some areas contrast with devastating floods in others. Means of thinking about the physical and human implications of such breakdowns are urgent, so new thought, often controversial when first put forward, is increasingly debated. For instance, the Gaia hypothesis, first put forward by James Lovelock, is influential but divides opinion. It contains at least three elements: the first is that the aspects of the Earth often separated into biological and geological should be considered as a single system comprising the 'geophysiology' of the Earth; second (and more contended) is that the Earth's system self-regulates, attempting to maintain balance across all its elements, so anything knocking this system off balance will be purged or eliminated. One crucial aspect of the whole-Earth system currently causing imbalances is human action, which brings us to the third element: the Earth may act to make the planet unlivable for us or limit our activities so that we do not take out much more than we put back, as is currently the case. This last idea has caused much debate, feeding now into sharp discussions about climate change.

Our current profound crisis needs a deep response of action and attitudes. People need to change or give up mass-production and consumption: this is most necessary in Western countries, where consumption is highest. We need to move away from our current tendency to exploit the world, to view the world as passive, as a set of resources to be used. Here a greater emphasis on participation is essential. Magic posits a human that is open to the universe and a universe that is open to the human. We will consider what might happen to our attitudes if we take this mutual openness

seriously, with important moral implications. The Western world finds magic most controversial, but it is the Western world that is one of a number of areas most in need of a change in attitude.

There are many forms of magic in the world, as we have seen. It is difficult to use someone else's magic, as each magical tradition grows up within a particular cultural setting. For cultures in which magic has been culturally marginalized, such as the contemporary Western world, copying the magic of another tradition will not work. We need, instead a magic for the twenty-first century. We have seen a number of thriving Western magical traditions, but many are less useful than they might be for various reasons. First, the structure of organizations such as the Golden Dawn and its various descendants is hierarchical, emphasizing arcane and secret knowledge as the basis of power. The mystification of knowledge and the hierarchies of power are not helpful in free and open discussions about how the universe works and the place of humans within the cosmos. Furthermore, such organizations often portray magical knowledge as abstract, existing in the form of ideas and symbols or the power of words through spells and other incantations. Most useful in meeting today's challenges is a more material approach to magic.

The root and backbone of magic is participation. Participation is not a mystical state but denotes deep involvement, in much the same way as a skilled car mechanic can work on an engine or a cook combines ingredients. Furthermore, participating in the world is not necessarily to enter into a happy harmony with nature but to be open to both the creative and destructive phases of the world, just as the world is open to human nurture and to over-exploitation. The forms of Western magic closest to these views exist with the neopagan and Wiccan movements, especially if these can be shorn of any claim to be drawing on ancient wisdom, equivalent to that of indigenous beliefs elsewhere in the world. The ecological aspects of paganism stress the closeness of people to other elements of the world and the moral responsibilities people have to all things, living and not.

Contemporary magic in many parts of the world sets itself up in opposition to science. For a contemporary Western magic to be accepted, it must grow up within a scientific milieu, given that science forms so much of our common-sense attitude towards the world. Between the death of Isaac Newton in 1727 and the development of quantum mechanics almost exactly 200 years later, the mechanical universe was at the height of its

power as a model for reality; we have seen that thriving magical traditions existed in this period, but they were often marginalized by science after Newton. No choice is needed between magic, science or religion. They each stress and develop varied aspects of human action and belief, working best when complementary. Three elements of contemporary thought incorporating scientific and religious beliefs are important to a new magic. The first tries to centre people within the world again, emphasizing the skills of the human body, its senses and emotions, seeing also little division between people and the things around them, which are artefacts for living well. The second and third dimensions of contemporary thought explore the sentience of the world, both its living and non-living aspects, raising the possibility that human intelligence and sentience are just one form among many, gaining shape and purpose through interaction with many other sentient beings. This also raises the controversial possibility that matter is in some way sentient. We will explore each of these possible starting points for modern magic in turn.

Extending human beings

Until recently human intelligence was seen to reside in a disembodied mind capable of abstract thought and of directing the actions of the body. Now the body itself is becoming intelligent in partnership with material things. People are being reimmersed in the world, not separated from it. The nature of human intelligence and consciousness is being fundamentally rethought, by people within academia and outside, with significant input from archaeologists.³ The idea grew up, from the seventeenth century onwards, that body and mind were separate; the body existed in the physical world of cause and effect, while the mind was its own place, an abstract, mental space in which the person could reason and think clearly. The mind developed plans and the body enacted them: we were made up of a ghost in a machine.

In doubting such ideas, it is not that the ghostly mind has been exorcised, but that it has been infused through the body and indeed sent out into the material world. Humans have bodily skills no other species possess. For us to lift a mug of coffee to our lips, our hand needs to feel the shape of the mug or its changing weight as the coffee is drunk. Our lips are sensitive to the heat of the liquid. The bones and muscles of hand and arm are

constantly adjusting and can be seen as not totally separate from the mug but in a relationship with it. Of course, most of the time we drink without thinking about it: we are concentrating on the conversation with our friend, reading the paper or sending emails. Our intelligence can be operating at a low level, but it is still important to manifest and develop it through everyday and taken-for-granted actions, words and images. Intelligence does not occur in a disembodied mind but within the whole body and that body is intimately connected with things. The senses of the body are attuned to the world with which it is so closely engaged, in a connection so close it is often difficult to say where the body stops and its surroundings start.

Material things are partners in our understanding of the world. Through doing things – cooking, cycling, typing – the world makes sense to us. It makes sense because we sense and engage, but the nature of our engagement comes partly from the things of the world. Objects are active partners in working to make sense of the world. I find it very hard to replicate the act of writing with a pen without holding a pen in my hand. Skilled pianists struggle to replicate exactly how they strike the keys without a piano. Pens and pianos are not brute instruments on which the skills of the body are acted out but partners in our actions. Not only do we need to take intelligence out of the mind and place it within the body but to extend the body to all the things around us that we use everyday or encounter for the first time. Our consciousness and intelligence are diffused through the world. Humans are part of an intricate nexus of connections, with matter and energy flowing backwards and forwards when we act. To be human is to be open and engaged. These notions of the extended mind emphasize participation with the material world: intelligence resides in the whole body as it undergoes the process of universal engagement.

Acts of production are reciprocal ones: as we make artefacts, they help to create us. Work on the world develops human skills in certain directions but also a feel for the way the materials work, in addition to appreciations of style and beauty. When I went to Papua New Guinea, I found there was much I could not do well, things that local people took for granted. Paddling a canoe, making or repairing a fishing net or simply walking through the rainforest required skills that children pick up when young but that are much harder to learn when older. People were capable in ways I was not. Skills learned in the first few years of life and reinforced since

gave them a series of taken-for-granted ways of doing things. Although people throughout the world are born with the same range of bodily capabilities, our bodies become attuned to the world in myriad ways, for instance, we adapt to living on islands covered by rainforest on the one hand or in Western cities on the other. Fundamental to magic is that humans are linked to the world. Accepting the range of ways we are enmeshed with the world allows us to enter a more magical mind-set.

Humans beings think, but we also feel through our senses and emotions. New developments in psychology and medicine among other disciplines are encouraging us to take greater account of our psychological and emotional states. The psychological state of the patient influences recovery, which is something that would not be a surprise to a Mesopotamian āšipu, although they would have thought in terms of demons, not psychology. There is increasing emphasis in Western medicine on treating the whole person, particularly with serious illnesses, with increasing attention to managing the emotions through counselling, meditation and yoga. Placebo drugs help to effect a cure, at least with some illnesses and medicines. This can happen even when people know the pills they are taking have no medicinal properties, so perhaps it is the interaction with the doctor that is curative. It now appears possible that states of stress or anxiety might be transmitted from one generation to the next, as the chemical states of the body influence blood proteins, leading sometimes to genetic mutations that are then passed on to children. There is a whole world of possible epigenetic effects, in which the ecological webs that people live in influence their genes in a manner that is only just starting to be understood. Magic and medicine are interwoven, with earlier forms of both emphasizing activities and talk as well as things such as herbal cures, whereas we now see medicine as being about drugs, leaving out the more psychological aspects.

We stand firmly on the Earth, perceiving the world through the whole of our bodies and often acting with skill and care based on the information we receive. All cultures are also aware of the limits of perception, so many techniques have been developed to extend our experience, from meditation to the use of sophisticated laboratory equipment. Infrared, X-rays and microscopic analysis all open up aspects of the universe we cannot access through our normal senses. Dark matter ([Figure 10.3](#)) and energy have recently become known unknowns but are otherwise mysterious, even though they are a major component of the universe. There are always more

things to be discovered in the universe, so entertaining new and unlikely possibilities is vitally important.

Networks of sentient life

An exciting new picture is emerging in many areas of the scientific world of what it means to be human: to be human is to be connected. Human bodies develop their intelligence with and through artefacts, houses or landscapes, which means that our understanding of the world grows out of a partnership with things. Without doubt the living world constitutes a network of intelligences. Webs of communication, memory and action cover the whole globe, as various species of plants and animals interact, each in its own way. People are part of such webs. Despite some delusions to the contrary, humans are rarely in charge of these innumerable connections, especially as we are unaware of most of them. Many of us have become existentially lonely by failing to grasp how much the living world recognizes, remembers, learns and acts. A sense of kinship and connection with the urban and rural landscapes in which we live, as well as the plants and animals in those landscapes, would help to make us all feel more at home in the world, more willing to engage in reciprocal and equal ways with all the things around us.

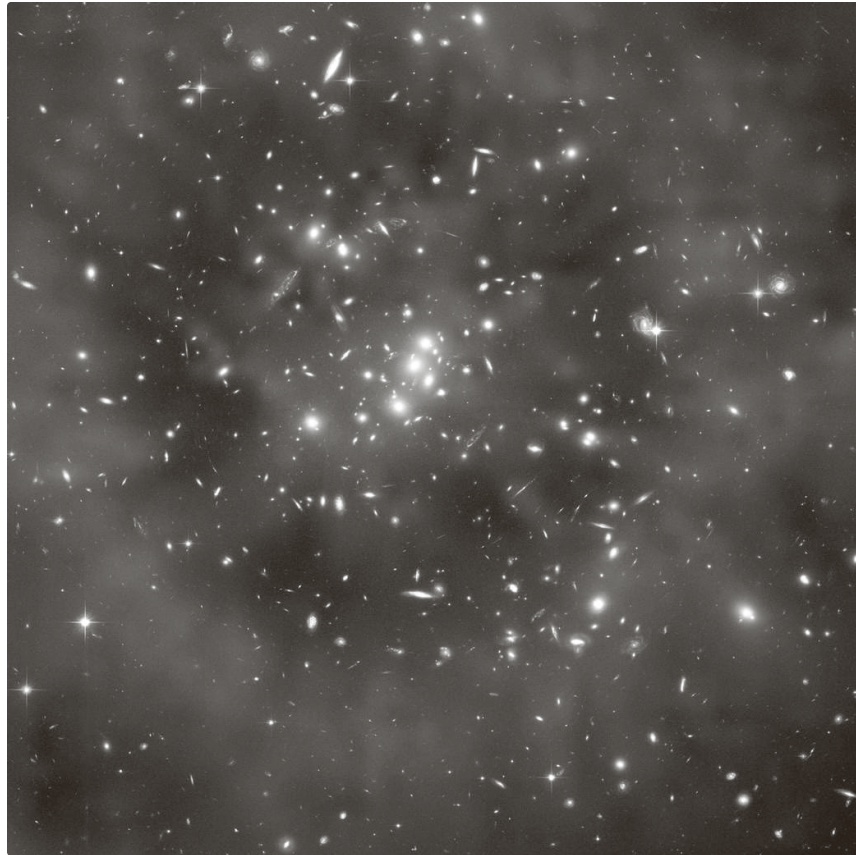


Figure 10.3. Attempt to depict the balance between the observable universe and dark matter, with the lighter elements being the aspects we can observe.

Humans live in sensate ecologies. The world is encircled by connected communities of microbes, insects, plants and animals, each making sense of the world in its own way, while also contributing to broader flows of materials and information. An explosion of literature is occurring that explores the intelligence of many living things, taking in everything from plants (especially trees)⁴ to octopuses⁵ to cows.⁶ Although such work comes out of the scientific practices of ecology, it finds common cause with theological traditions across the world, as well as with magical beliefs, helping to give the triple helix of human practices new shape and connection.

Much work is being carried out on the intelligence of plants. Plants lack central nervous systems but are able to sense their worlds and interact with them in subtle and varied ways. Plants produce and exchange chemicals to communicate with themselves and with others. Plants can sense in many of the same modalities as animals, although often without specialized organs

of sense. Leaves are sensitive to light: a plant will elongate buds, shoots and leaves in areas regularly exposed to sunlight and shed those in the shade. Plants require carbon dioxide, water and other mineral nutrients that they locate through chemical receptors in their roots and leaves. They can distinguish their own roots from those of other plants, giving them some sense of self. Plants also register gravity: shoots grow up and roots grow down. More interestingly and controversially, plants are able to sense sound through movements of leaves and hairs. Some species may emit bursts of pollen when they feel the buzzing of bees. Chemicals known as volatiles, which can have strong smells, attract animals and insects, but their presence is sensed by other plants. The best known of these is the smell of newly cut grass, which can alert other plants to the danger that herbivores are in the vicinity. Plants that have not yet been eaten could then produce chemicals that make them less palatable. This works less well with lawnmowers.

Many plants, including trees, form alliances with each other. Roots strike up alliances with mycorrhizal fungi ([Figure 10.4](#)) that benefit both parties but that also allow plants to communicate with each other. Somewhat inevitably, mycorrhizal networks have been dubbed the Wood-Wide Web. Mycorrhizal fungi help trees communicate, move nutrients, and supply and move defensive chemicals, enabling individual plants to share water and nutrients; in addition, they send chemical messages that allow other trees to prepare for fungal attack. Such messages pass most often between trees where one is the offspring of the other. A growing realization of the importance of these networks and other forms of connection is shifting attention away from attempts to understand single plants in competition with each other to an emphasis on whole communities that cooperate. Vital relationships are also formed between plants and insects and other animals – work on cows, for instance, shows that they know which plants to eat when sick. The living world is alive to the possibilities, threats and capacities of other parts of the ecosystem, with an ebb and flow of action and interaction in a sensitive and responsive manner.

Much could also be said about the intelligence of animals. We have all made our own observations of the animals with which we live in close proximity. Recent research has shown that cows, for example, have long social memories, bearing grudges or forming alliances lasting many years, showing complex emotions. They can learn to open gates. Octopuses also remember other individuals or situations. They learn by observation: after

watching other octopuses manipulate coloured objects, they can imitate them. They can also learn to transport things like coconut shells over distances to construct a shelter. Examples of plant and animal memory; unexpected forms of communication; learning novel actions; and tool use – our knowledge of all these skills and capabilities is now multiplying rapidly as researchers come to realize that the living world as a whole is a great mosaic of intelligent forms linked through many networks. Each species is of course intelligent in its own way, depending on its body, capacities and environment; the capabilities of other species should not be seen as some deficient form of human intelligence. We need to recognize the interconnectedness of all life but also to understand the sheer differences of history, physiology and intentions of species across the biosphere.

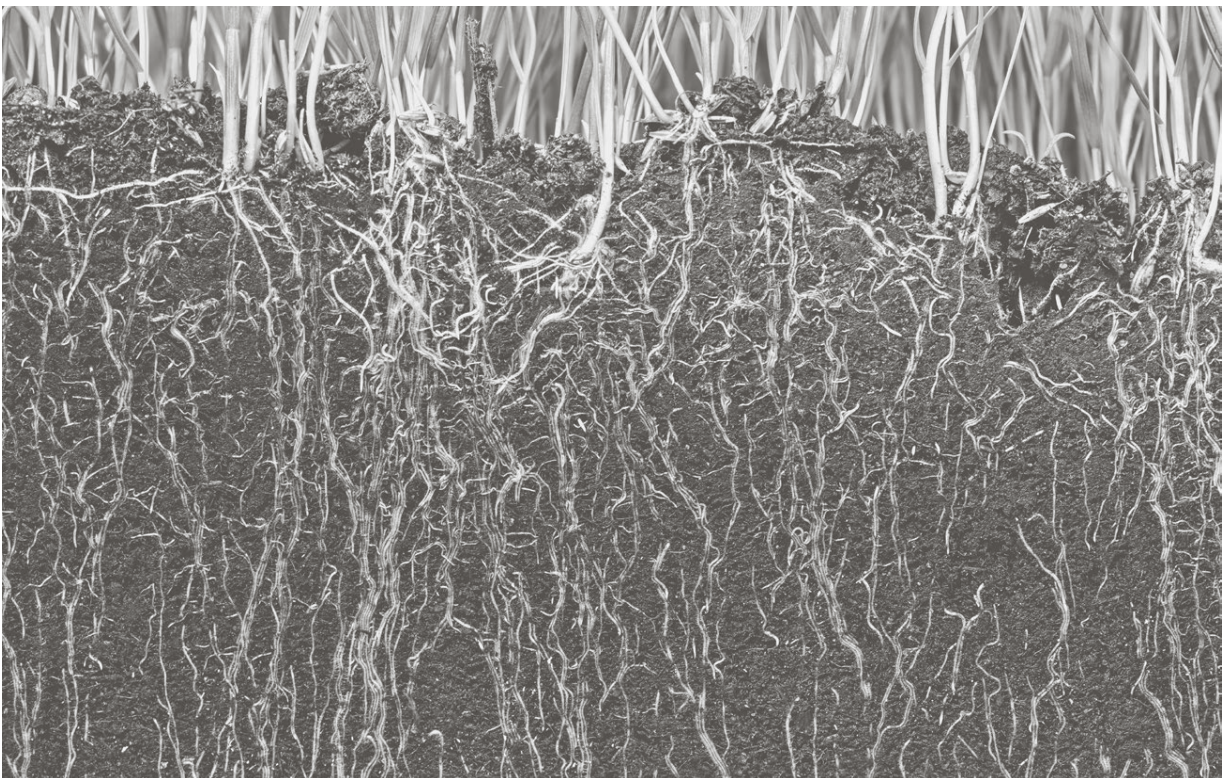


Figure 10.4. Extensive network of grass roots with mycorrhizal fungi.

Viewing the Earth as a series of latitudinal bands, we can see sets of intelligent ecologies from the Arctic to the tropical rainforests, between which are huge forests, grasslands and deserts, in constant and complex interaction, with a base in the microbial world, through insects, plants and animals. Viewed against such a dynamic and holistic background, humans

are just one intelligent species, who can live and thrive only through an appreciation of, and respect for, the connections and intelligences of others, and through maintaining rather than cutting such connections wherever possible. A stress on participation is vital here.

Magic is a technology for recognizing that life exists in every nook and cranny. For Siberian groups, for instance, the forest is full of life. Moving among the trees a single human hunter is never alone but surrounded by other forms of consciousness in the form of hills, rivers, plants and animals. Offerings need to be made, words said and respect given. The world's oneness does not make it benign; rather, it is full of bears, snakes, diseases and causes of accident. Australian Aboriginal people take for granted that their group derives from wells of ancestral and spiritual power within the landscape, powers that can be embodied in song, dance, painting or artefacts; the spirit Yurla was a tricky, lustful and possibly destructive force, with which people needed to learn to live. In such cultures, humans attempt to understand, curate and nurture these wellsprings of power, honouring them in various ways and returning their dead to the powerful places in the landscape. The creative actions of reindeer-herders or Aboriginal groups grew up over thousands of years in ways that make sense in their physical and cultural settings. These groups take as fundamental the ideas that biological science is only now just exploring, centring on the intelligence and connectedness of all things, including people. Practices of care developed by individual groups cannot be copied by outsiders, or even fully understood by them. But, even so, all of us have much to learn about the sensitivity and responsiveness of the world around us.

Is matter sentient?

Some of the most challenging questions of contemporary physics concern the sentience, or maybe even the consciousness, of matter. What is matter and how it differs from things like spirit or mind are questions tackled by many, with changing answers. Newton provided a classic description of matter, which underpinned the emerging notion of the mechanistic universe. In his *Opticks* Newton argued that matter consisted of 'solid, massy, hard, impenetrable and movable particles', a bit like pebbles on a beach. As the twentieth century progressed, the belief faltered that matter was composed of a discrete set of things, such as atoms, in interaction with each other. As

the philosopher Philip Clayton has written: ‘Relativity theory in cosmology and the complementary thesis in quantum physics suggest that the basic reality is some sort of hybrid “matter-energy”’, and indeed ‘that this reality is more energy-like than matter-like’.⁷ This stress on energy makes reality more like the sea than it is like pebbles on the beach; energies flow back and forth across the universe in ways in tune with our understanding of relativity, thermodynamics and the quantum world. On the largest scale, that of the universe as a whole, Einstein’s General Theory of Relativity offered up a more dynamic picture than that of Newton. The previously inert qualities of space and time, Einstein combined into spacetime, which were also seen to be continuous with gravitational fields, with the result that space is bent by mass and time passes most slowly where the force of gravity is greatest. Such a view took the emptiness of space and transformed it into a series of undulating fields, in which the movement of bodies occurred not just in space and time but in a manner in which movement shaped space and time themselves.

Most animists would respond by saying: ‘We told you so.’ For animists the universe is always active and energetic, in ways that are often continuous with the energies of the human body, connecting the human and the non-human in patterns of mutual influence. Many groups make no distinction between what Westerners see as living and what they see as inert. Such connections were broken for a couple of centuries by the mechanical conception, making the difference between brute material and the human spirit appear as a contrast between matter and energy. As matter becomes re-energized, a more continuous universe can re-emerge in Western thought. A new energetics is bringing Western thought closer to the humanized universe found in many other cultures.

Such an intellectual realignment in the West raises again one of the largest questions: the problem of consciousness, particularly as the brain is seen to work through flows of energy between neurons. Is consciousness an odd embellishment in one obscure part of the universe that we call the Earth or a more fundamental property of the universe?⁸ It is unlikely that consciousness is an epiphenomenon, and, although physics currently has no explanation for consciousness, it is a problem that cannot be ignored. The problem of consciousness entered modern physics partly through the conundrums of quantum mechanics. When people observe quantum phenomena, the act of observing the subatomic particles does seem to

change the measured result; this has been described as subjectifying the cosmos. Although physicists are deeply split on how and why these most basic physical phenomena are influenced by observers, there is nonetheless general agreement that this influence occurs and can be detected. In the even more contentious case of entangled particles, where two entangled photons have opposite properties of spin, a change in one will occasion a change in the other, which occurs faster than the speed of light can move between them, leading some to say that they are conscious of each other. Use of the term 'consciousness' here is tricky, perhaps deriving from the lack of any other suitable term, although the idea of matter being conscious would be readily accepted within any animist world-view. At the very least the relationship between consciousness and the basic building blocks of matter is destructive of a straight mechanistic view, emphasizing instead flows of influence between what we would see as living and as inert.

We have become accustomed to the idea that ecology works as a series of webs or networks. Nutrients move through ecosystems: plants pick up chemicals from the air, soil and water, which are then passed on to the animals that eat the plants, which then go up the chain of carnivores, which when they die return chemicals to the soil, to be taken up again by plants. The isotopes of carbon or hydrogen stay the same through this process, even though they are incorporated into bodies as radically different as grass or a lion. What if we considered each form of matter, living or not, as part of a network of sentience? In such a viewpoint each element of the universe is knowing in its own way, from rocks, soil or water through to various living things, including people, so might we now think of cycles of sentience? Sentience is a broad property of the universe, with all its aspects having their own forms of knowing. The sentience of other things would not be seen as an impoverished form of human knowing.

Forms of knowing are not developed or exercised in isolation – grass is only sentient in relationship to the soil, the water it draws up or the things that might eat it. Grass grows to a shape and size influenced by all the networks of relationship in which it is enmeshed. This is even more true of people. Human sentience never can be an isolated phenomenon, but grows up through all our relations with other things, living or not. Human knowledge does not come about through some abstract state, as might be the case if our body were floating in a sensory deprivation tank, but through our full and active participation in the world. As we participate in the world,

it participates in us, in an analogous manner to the chemicals that flow through our bodies when we eat and excrete.

We do not know everything a human body can do: in various cultural contexts people learn amazing skills, whether these be playing the violin or learning to track prey from the traces they leave as they move through the landscape. When novel necessities occur, bodies will learn skills as yet unseen. This is partly because human bodies can do so many different things depending on the physical and cultural worlds with which they are engaged. Our bodies extend out to many other human bodies, but also to all the other entities with which we are in contact. People are not intelligent on their own but through dint of working with the world, which helps to develop forms of human skill. Carpenters work with wood, and their skills are honed by the wood as much as by their hands, and this is true of potters and clay, or cooks and their ingredients. If all our partners are themselves sentient, that is the clay as much as the species of food stuffs, then we have a responsibility to help them to thrive in a reciprocal manner to how they help us. Much more thought is needed to think through the cycles of sentience in the world and how humans create but also destroy such cycles. We do not yet know what the clay or wood or various plants and animals can sense or know, and we can only learn by raising a question of their understanding. Many of the fundamental qualities of humans and of the universe are still beyond our grasp.

At the speculative edges of current Western thought we are nibbling away at distinctions between matter and energy, insensible matter and knowing life forms, developing in the process a model of a connected world of thought, feeling and responsibility. It is possible that erosion at the edges might eventually destabilize the central tenets of the scientific paradigm, making it more magical. A Native American person once said to me: 'What you call energies, I call spirits.' This simple but profound act of translation allows for accommodation between what seem to be fundamentally different world-views. If energies and spirits are similar things, but known by different names, it is possible that the largest aspects of the universe, such as suns and planets, together with the smallest, such as subatomic particles, are shot through with consciousness and sentience, qualities we easily accord to life. We cannot at present really understand what it means for matter to be sentient, but maybe we can learn to act in ways that respect this possibility. Attitudes of respect and responsibility lie at the heart of

many magical world-views, being the foundation also for any twenty-first-century magic. We have separated out magic, religion and science as strands in a triple helix: connected but distinguishable. It is possible that, in pursuing contemporary questions of energy, sentience and animism, distinctions between these three basic human orientations to the world will gradually become less important, leading to a more holistic physical, spiritual and moral appreciation of the world.

The future of magic: participation and responsibility

The scale and urgency of the global problems of the climate emergency and inequality are such that we need to explore radical changes of attitude and activity. Magic contains a set of novel possibilities, alive in many cultures, although marginalized in some, such as those of the Western world. What might the world look like if we adopt a more magical stance? What forms of protection could magic afford? ([Figure 10.5](#)).

The question is: how can industrial economies of mass production, suitable to provision a global population of over 7 billion people, be run with a hunter-gatherer attitude to the world, where there is little separation between people and their worlds? Phrased in this way, our task is enormous and the challenge unprecedented. However, we have no choice but to change our ways, so that setting custodianship at the heart of our practices will be critical. There is useful current discussion of economics for the common good, which would contrast with economics for profit, thinking about benefit in terms of quality of life for the majority. Such an economics will not just include all people but all aspects of the cosmos. Helping everything to thrive is a novel and daunting aspiration, which can never be met in detail, but is a useful corrective to seeing human needs as separate from everything else and as sovereign.

At the heart of the most profound magical world-views we can see an ethics of care. Custodianship is crucial, centred on the desire to pass to future generations a world that is in a beneficial condition, rather than one that is damaged. Such an ethics requires care for the past in terms of the ancestors and their traces in the landscape, which provide grounding and rooting for contemporary cultures. Care for the future lies at the core of custodianship. Of course all actions take place in the present, and it is here that care for the community must take place, where the notion of

custodianship extends to all sentient beings. Einstein created a dynamic universe in which time, space and gravity were intimately interlinked; a magical universe is one in which human being and knowing are always intertwined with ethics. In such a world we do not understand, act and then wonder whether our actions have a dimension of ethics and care: these are built into our action and understanding from the start.

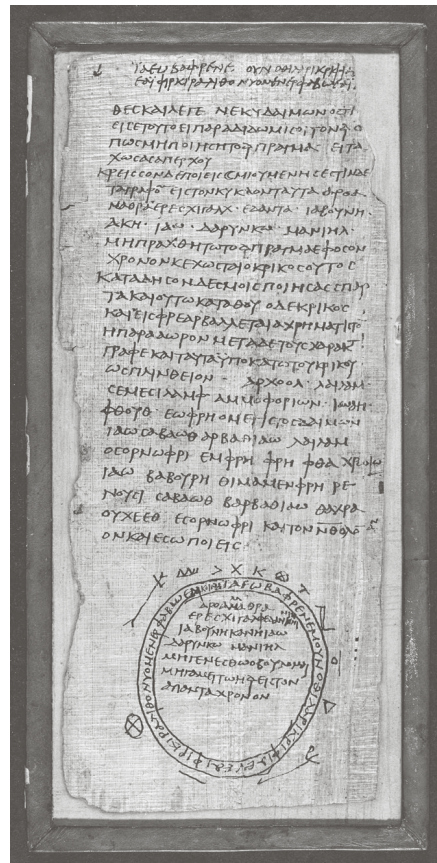


Figure 10.5. The possibility of magical protection.
A fourth-century CE Greek Egyptian papyrus
scroll. It has an image of a ring and the caption:
'May something never happen as long as this
remains buried.'

In emphasizing care we need to rebalance the relationship between the living and the dead. This might seem an unusual place to start, but the dead provide us with a sense of lineage and personal history, which in turn encourages custodianship as we pass the world on to subsequent generations. Situating ourselves within a chain of human generations helps us to focus on the future as much as on the past, if we want such chains to

continue. Many cultures, from those of Ancient Rome to contemporary Japan, contain household shrines to ancestors and other family spirits; such shrines allow honour to be paid to ancestors, along with requests for help, which allow for an exploration of important current issues and worries.

At present in the West we mourn that the dead are no longer living, instead of honouring them as ancestral forces and presences. There is much current interest in family history, but this is not translated into a broader cultural sense that we, the living, are a moving moment in the generations of the world, with a responsibility towards those as yet unborn in the same way that earlier generations had a responsibility to us.

We have started to search for sentience and intelligence wherever they might exist. As we have just seen, the current emphasis on intelligent actions in plants and animals is revealing many surprises. More are to come, especially as the actions of many organisms may involve aspects of the world humans cannot easily sense. The final frontier of sentience studies lies within matter. Here we in the West have been hampered by a rigid distinction between the living and non-living. Following the possibility that consciousness resides everywhere will definitely bring surprises, maybe changing our definitions of consciousness. But, within a sentient universe, humans exhibit the strange capacity of self-consciousness; and with a sense of self comes a well-developed sense of the other, making it possible for us to ask: 'What does the universe want?' and then to act accordingly.

We also need to rethink human emotions and mental health. This has two elements. First, many people feel lonely, isolated and cut off from the world despite in many cases being materially comfortable. Decreasing numbers in the Western world develop practical skills or engagement. Most of us live expecting that food and other material things will be produced by others, even to the extent that food is cooked elsewhere and delivered to us. Lack of direct physical participation is increasing at the same time as feelings of alienation and anxiety. It is possible that these are linked. Secondly, human emotional and psychological states are now defined in a very narrow manner. Many societies have valued a whole range of psychological dispositions, including those we consider mentally ill. Many shamans would be considered odd, to say the very least, by Western norms, and their positive contribution would be marginalized and ignored. Those who talk to spirits fall outside our current view of the normal, but such people in the

West might be speaking important truths that many of us do not. Such truths, if spoken, now go unheard.

The future is of great concern to all cultures, and we have seen many sophisticated forms of divination and prophecy. Irrespective of how far these work in a sense that can be verified by science, if people have accepted cultural means of addressing worries about the future, then the act of asking and talking might indeed firm up the future, helping people to decide what to do and how. In the Western world prediction is often a statistical or factual matter of what the future will look like, leaving out the more existential questions of what future forms of making a living would be desirable.

All human cultures live by transforming the world. Firing clay to make a pot, alloying metals into new forms, growing plants and animals for food, as well as cooking some of them, all involves skilled judgement about what is possible, desirable and necessary. In the West transformation is seen mainly or purely as a technical matter – having the right ingredients, using the correct degree of heat and so on. Such elements are crucial, but many groups also raise important questions about the moral or physical states of the people engaged in these acts. Whether modern African smiths or Medieval alchemists, effort was put into purifying the craftsman and often also their equipment and materials. Skilled production did not just involve questions of whether procedures were possible but also if they were desirable and advisable. An important by-product of purification was to concentrate people's attention on whether some acts were necessary: should they take place now and what might be the broader, more spiritual entailments of making metal, pots or food? Slowing production down is the very opposite of the current pursuit of growth, deriving as it does from a very different mind-set. Asking occasionally whether production is needed, and who should carry it out and when, can be crucial questions when thinking about custodianship and saving materials for future generations. Taking new materials and transforming them is an existential matter as much as an economic one. Thinking in the long term and of producing oneself has become foreign to many of us. How common is it in the Western world to plant a tree now that might be turned into a house or furniture in thirty years' time ([Figure 10.6](#))? But it also feels that our thinking about these issues is starting to change fast. Care for the future

involves acts in the present. Our acts today cast a long shadow through the coming century and beyond.

We will continue to use science to understand and change the world. But magic has an older sibling's capacity to calm the energies of science and its technologies, allowing us to think about the ends to which scientific discoveries can be put. Religion encourages a sense of wonder at powers beyond the human; magic helps us to explore our shared substance and commitments to the rest of the world; and science provides distance and techniques for manipulating the physical aspects of the universe. Magic, religion and science all reach inside us to designate various human capabilities: our empathetic qualities through magic; our feeling of wonder at the scale and beauty of the cosmos through religion; and our technical skills and abilities through science. All elements of the triple helix of magic, religion and science are necessary, as they help us to reach out to the universe, exploring and connecting with it in various ways. No one strand is inherently more important than the other two, and magic is certainly not the least of the three.



Figure 10.6. Eleusine plant used by the Azande for Amatong magic to prevent witchcraft.

Magic offers the possibility of a communal life – a life lived together with all the cosmos. Although such a change in relations is difficult, the stakes are high; a truly open community is hard to obtain or sustain, but the need to cool the planet and live in a greater state of equality is urgent. Failure invites catastrophe for the fragile networks of life on Earth, threatening the many strands of sentience. Magic allows for a sense of kinship with all things, living or not. And with kinship comes responsibility, the same sort of responsibility we feel towards our family and friends. Whereas science asks, ‘Can we do that?’, magic asks, ‘Should we?’

Timeline: Global History of Magic

Date	Global events and processes
50,000– 10,000 BCE Ice Age	Origins of ancestral rituals in China . Rock art in Africa and Australia – possible origins of the Dreaming in Australia . Rock art, complex burial, sculpture – range of magical practices in Europe . First colonization of Americas bringing magical systems from Siberia ?
10,000– 6000 BCE Climate warms	Large ritual structures in Middle East – Göbekli Tepe, etc. Çatalhöyük rituals and history houses. Development of animistic views in Americas , Africa and Australia – continuation of rock art. Mesolithic magical practices – Star Carr and Lepenski Vir. Start of deliberate deposit of objects in Europe .
6000–1000 BCE	Unification of Nile Valley, first magic wands, composite animals in Egypt and story of Horus. In Sub-Saharan Africa , possible origins of magic connected with metalwork and earliest ancestral shrines. Probable development of forms of divination. In North America , large centres like Poverty Point and intense ritual life. In South America , emergence of monuments and large settlements. Intense ritual and magic around pyramids and ball courts. In Australia , first mounds that evidence ritual, magical and historical practices. Rock art indicates relationships between people, animals and plants. Oral histories show some elements of Dreaming beliefs date back to this period, as well as Dreaming tracks. First temples in the Ubaid Period. First clay tablets in cuneiform script – alchemy and astrology. Families of diviners in Middle

East. Possible origins of divination in **China**. Bronze Age ancestor worship and divination in **China**. Okunev art, and origin of khirigsuurs in **Mongolia** and **Eurasian Steppe**. Animistic relations on **Steppe**. In **Israel**, Moses and charismatic figures working miracles, probable belief in demons, angels, astrology and protective magic. In **Europe**, magical practices connected to the house, the human body and plants. Building of large burial and henge monuments. Deposit of large amounts of bronze and human bodies in land and water.

First
millennium
BCE

Enuma Anu Enlil written, presenting **Babylonian** astrology. Transmission of **Babylonian** thought and magic, especially astrology, to the **Greek** world. Many **Chinese** classics written, origins of Confucianism, Daoism, etc. Five-element Theory and start of *I Ching*. Unification of **China** under the First Emperor – Terracotta Warriors. First tumuli in **Siberia**, mapping the elemental properties of the landscape and rich graves. Scythian art, blending humans, various animals and plants: an art of ambiguity and magic. In **Israel**, First Temple. Polytheistic beliefs. Possible use of amulets and of the Tetragrammaton. Second Temple. In **Europe**, Celtic art playing with relations between people, animals and spirit figures. **Greek** cursing and divination. Continuation of large states and settlements in the **Americas**, with a wide range of animistic and ritualized forms of magic. Continuation of rock art and ceremony in **Australia**, development of Dreamtime beliefs.

First
millennium
CE

In **Africa**, growth of ancestral shrines and practices connected with them, influence of Islam, growth of divination and magic connected with crafts. In **Australia**, intensification of food production in some areas and high populations. Continuation of rock art and mounds, as well as Dreaming tracks. In **North America**, large ceremonial and settlement sites – Cahokia. Ethnographically known art styles develop. Interest in astrology and astronomy. In

South America, succession of states. Complex settlements, monuments and material culture in a number of areas. Probable emphasis on animism but also human sacrifice and pain. Augury and divination important. Probable end of the āšīpu tradition in first century CE in **Mesopotamia**. Uighur statues and ritual sites across **Mongolia** and the **Steppe**. **Jewish** magic comes into focus, charismatic figures, including Jesus. **Babylonian** incantation bowls and amulets common. Protective magic. Links with medicine. Diaspora takes magical practices across the extended **Jewish** world. Christianity reintroduced into **Northern Europe**. Further development of magic connected to the Church.

Second
millennium
CE

In **Africa**, European incursions and magics of resistance developed. In the **Americas**, dispossession and death of indigenous inhabitants on a large scale. Range of magical practices, often blending indigenous and African forms. Widespread animism. In **Australia**, mass death due to European incursions, further development of ritual life and connections to the landscape.

Possible origins of modern shamanism on **Steppe**, drawing on older roots. Medieval and modern **Jewish** magic – *Sepher Raziel ha-Malakh*, *Sepher ha-Razim*. Development of practical and mystical Kabbalah – especially among the Sephardim. Some astrology. Names of God and other texts indicate important manipulations and methods. Magical uses of psalms. Amulets important. Golem among Ashkenazim. In **Europe**, High Medieval Period – further development of astrology and alchemy drawing on ancient traditions. Curses and protective devices both found. Theory of Humours. Renaissance – mix of magic, religion and science. Development of astrology and alchemy with influence of newly translated Greek texts. Protective devices in churches. Widespread persecution of witches. Development of modern science – Newton combines scientific and magical ideas. Much

emphasis on protection of the home. Dominance of mechanical universe but continuation of all forms of magic – astrology, alchemy, witchcraft and vernacular magic including onions, etc., in chimneys.

Today

Further development of magic of colonial and post-colonial resistance in many parts of the world, including the **Americas, Africa, South-East Asia** and **Australia**. Here beliefs in animism widespread, as are spiritual attachments to the land. In **Europe** and **North America**, development of recent magical societies, and now paganism, Wicca during the last fifty years. Majority of people in the West hold some form of magical belief. Marked resurgence in beliefs in astrology. In **East** and **South Asia**, development of astrology, use of apps, etc., but also Feng Shui, *I Ching* and Five-element Theory, together with broadly alchemical theories of the body. The possible convergence of some elements of magic and those of science.

Notes

1. *What is Magic and Why is It Important?*

- 1 My consideration of magic does not include conjuring, which is fascinating and puzzling but involves skilled misdirection and trickery, and is not what I am dealing with here. For an exploration of this kind of magic by an author who is a psychologist and practising magician, see G. Kuhn (2019), *Experiencing the Impossible: The Science of Magic*. Boston, Mass.: MIT Press. For the links between anthropology and entertainment magic, see G. M. Jones (2017), *Magic's Reason: An Anthropology of Analogy*. Chicago: University of Chicago Press.
- 2 K. Thomas (1971), *Religion and the Decline of Magic*. Harmondsworth: Peregrine, 800.
- 3 See O. Davies (ed.) (2017), *The Oxford Illustrated History of Witchcraft and Magic*. Oxford: Oxford University Press.
- 4 J. Å. Josephson-Storm (2017), *The Myth of Disenchantment: Magic, Modernity, and the Birth of the Human Sciences*. Chicago: Chicago University Press, 24–5.
- 5 *ibid.*, 30–33.
- 6 G. Harvey (ed.) (2014), *The Handbook of Contemporary Animism*. London: Routledge, 5.

2. *The Deep History of Magic (c. 40,000–6000 BCE)*

- 1 An authoritative account of these early periods is contained in C. Stringer (2011), *The Origin of Our Species*. London: Allen Lane.
- 2 J. Jaubert, *et al.* (2016), 'Early Neanderthal Constructions Deep in Bruniquel Cave in Southwestern France', *Nature*, v. 534, no. 7,605, 111–14.
- 3 D. Lewis-Williams (2004), *The Mind in the Cave: Consciousness and the Origins of Art*. London: Thames and Hudson.
- 4 P. G. Bahn (2010), *Prehistoric Rock Art: Polemics and Progress*. Cambridge: Cambridge University Press.

- 5 J. Clottes (2016), *What is Palaeolithic Art? Cave Paintings and the Dawn of Human Creativity*. Chicago: Chicago University Press.
- 6 For more detail on Ohalo, G. Barker (2006), *The Agricultural Revolution in Prehistory*. Oxford: Oxford University Press, 111–14.
- 7 O. Dietrich, M. Heun, J. Notroff, K. Schmidt and M. Zarnkow (2012), ‘The Role of Cult and Feasting in the Emergence of Neolithic Communities: New Evidence from Göbekli Tepe, South-eastern Turkey’, *Antiquity*, v. 86, no. 333, 674–95; K. Schmidt (2010), ‘Göbekli Tepe – the Stone Age Sanctuaries: New Results of Ongoing Excavations with a Special Focus on Sculptures and High Reliefs’, *Documenta Praehistorica*, v. 37, 239–56.
- 8 S. Mithen (2003), *After the Ice: A Global Human History 20,000–5000 BC*. London: Weidenfeld and Nicolson.
- 9 For more information on ritual in Anatolia and the Levant more generally, see M. Verhoeven (2002), ‘Ritual and Ideology in the Pre-Pottery Neolithic B of the Levant and South-east Anatolia’, *Cambridge Archaeological Journal*, v. 12, no. 2, 233–58.
- 10 See I. Hodder (2011), *Çatalhöyük: The Leopard’s Tale*. London: Thames and Hudson. This contains an argument concerning the religious nature of the site but also many other details of this fascinating settlement.
- 11 For a fuller account of the Ubaid and a guide to other literature on the period, see D. Wengrow (2010), *What Makes Civilization?* Oxford: Oxford University Press.

3. *The Magic of the Cities: Mesopotamia and Egypt (4000–1000 BCE)*

- 1 J. Scurlock (2005), ‘Ancient Mesopotamian Medicine’, in D. C. Snell (ed.), *A Companion to the Ancient Near East*. Oxford: Blackwell, 302–15.
- 2 N. Champion (2009), *A History of Western Astrology. Vol. I: The Ancient World*. London: Continuum, 88.

- 3 Important and scholarly discussions of cuneiform culture are contained in K. Radner and E. Robson (eds.) (2011), *The Oxford Handbook of Cuneiform Culture*. Oxford: Oxford University Press.
- 4 Information taken from D. Schwemer (2011), 'Magic Rituals: Conceptualizations and Performance', in Radner and Robson (eds.), *The Oxford Handbook of Cuneiform Culture*, 418–42.
- 5 Champion, *A History of Western Astrology*, v. 1, 42–3, 88.
- 6 F. Rochberg (2016), *Before Nature: Cuneiform Knowledge and the History of Science*. Chicago: Chicago University Press, 69–76.
- 7 U. S. Koch (2011), 'Sheep and Sky: Systems of Divinatory Interpretation', in Radner and Robson (eds.), *The Oxford Handbook of Cuneiform Culture*, 447–69.
- 8 J. Baines (2006), 'Display of Magic in Old Kingdom Egypt', in K. Szpakowska (ed.), *Through a Glass Darkly: Magic, Dreams and Prophecy in Ancient Egypt*. Swansea: The Classical Press of Wales, 1–32.
- 9 G. Pinch (1994), *Magic in Ancient Egypt*. London: British Museum Press, 36.
- 10 *ibid.*, 109.
- 11 *ibid.*, 134.

4. Chinese Magic: Deep Participation (c. 20,000 BCE–present)

- 1 D. Q. Fuller and M. Rowlands (2011), 'Ingestion and Food Technologies: Maintaining Differences over the Long-term in West, South and East Asia', in T. C. Wilkinson, S. Sherratt and J. Bennet (eds.), *Interweaving Worlds: Systematic Interactions in Eurasia Seventh to the First Millennium BC*. Oxford: Oxbow Books.
- 2 Details of the Liangzhu complex are taken from Bin Liu, *et al.* (2018), 'Earliest Hydraulic Enterprise in China, 5,100 Years Ago', *Proceedings of the National Academy of Sciences of the United States of America*, v. 114, no. 52, 13,637–42.
- 3 Further useful detail is contained in R. Flad (2008), 'Divination and Power: A Multi-regional View of the Development of Oracle

Bone Divination in Early China', *Current Anthropology*, v. 49, no. 3, 403–37. See also R. Campbell (2018), *Violence, Kinship and the Early Chinese State. The Shang and Their World*. Cambridge: Cambridge University Press.

- 4 HJ: 00902 (this is the catalogue number for the oracle bone given by modern researchers).
- 5 HJ: 06834.
- 6 HJ: 22779.
- 7 More detail on Chinese bronzes in general can be found on websites such as that of the Shanghai Museum but also in scholarly published form through Jessica Rawson (1999), 'Western Zhou Archaeology', in M. Loewe and E. Shaughnessy (eds.), *The Cambridge History of Ancient China*. Cambridge: Cambridge University Press, 352–449; and Jessica Rawson (2018), 'Ordering the Material World of the Western Zhou', *Archaeological Research in Asia* – available in online version.
- 8 M. E. Lewis (2007), *The Early Chinese Empires: Qin and Han*. Cambridge: Belknap Press/Harvard University Press, 181.

5. Shamanism and Magic on the Eurasian Steppe (c. 4000 BCE–present)

- 1 An excellent accessible account of recent shamanism is contained in A. Reid (2002), *The Shaman's Coat: A Native History of Siberia*. London: Weidenfeld and Nicolson. A detailed picture of an individual group is found in P. Vitebsky (2005), *Reindeer People: Living with Animals and Spirits in Siberia*. London: HarperCollins Publishers.
- 2 For a fuller description of Urt Bulagyn and the work that took place there, see F. Allard and D. Erdenebaatar (2005), 'Khirigsuurs, Ritual and Mobility in the Bronze Age of Mongolia', *Antiquity*, v. 79, no. 305, 547–63.
- 3 I was lucky enough to be part of a group, organized by Jessica Rawson, shown round these monuments by Konstantin Chugunov and to look at finds from the region in the Hermitage Museum on a separate occasion.

- 4 For more details, see S. Rudenko (1970), *Frozen Tombs of Siberia: The Pazyryk Burials of Iron Age Horsemen*. London: Dent.
- 5 E. Jacobson-Tepfer (2015), *The Hunter, the Stag and the Mother of Animals: Image, Monument and Landscape in Ancient North Asia*. Oxford: Oxford University Press.
- 6 D. Anderson (2010), 'Shamanistic Revival in a Post-Socialist Landscape: Luck and Ritual among Zabaikal'e Orochen-Evenkis', in P. Jordan (ed.), *Landscape and Culture in Northern Eurasia*. London: Taylor and Francis, 71–96.

6. *Magical Traditions in Prehistoric Europe (10,000–0 BCE)*

- 1 For an excellent account of the European Palaeolithic, see C. Gamble (1999), *The Palaeolithic Societies of Europe*. Cambridge: Cambridge University Press.
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